The OIL WEEKLY

15¢ A COPY

Exclusively Devoted To The Production and Transportation of Oil and Gas

Engineering News Statistics

August 15, 1930 **Volume 58. No. 9**

"How does it compare with IDECO" is the question oil men today ask when inspecting equipment for drilling or pumping. For IDECO has set a standard of attainment, brought about by research, exact engineering knowledge and familiarity with the oil man's needs.

IDECO

From the IDECO Galvanized Structural Steel Derrick and Boykin Greyhound Rotary drilling equipment to its more recently developed lines of pumping units, this Company, in excellence of products and facilities for servicing, stands unexcelled.

Literature, illustrating and describing these newer developments in production equipment should be in every oil man's possession. Write for it.

THE INTERNATIONAL DERRICK & EQUIPMENT CO., **Columbus, Ohio, Beaumont, Texas, Los Angeles, Cal.**

Plants: Columbus, Marietta, Delaware, Ohio; Torrance, California; Beaumont, Houston, Texas. *District Offices:* New York City, N. Y.; Wichita, Kansas; Tulsa, Oklahoma; Shreveport, Louisiana; Ft. Worth, Beaumont, Texas; Maracaibo, Venezuela. *Warehouses and Stocks:* Columbus, Delaware, Ohio; Seminole, Tonkawa, Drumright, Okemah, Maud, Sasakwa, Allen, Oklahoma City, Oklahoma; El Dorado, Wichita Heights, McPherson, Kansas; Houston, Beaumont, Big Spring, Odessa, Pyote, Pampa, Borger, Mexia, Luling, Wichita Falls, Grand Saline, Seguin, Hebbronville, Pettus, Texas; Lake Charles, Shreveport, Zwolle, Louisiana; Smackover, El Dorado, Arkansas; Bakersfield, Taft, Torrance, California; Hobbs, New Mexico.

Export Offices: 90 West Street, New York City; Columbus, Ohio; Houston. Texas; Los Angeles, Calif. 722

Achievements

are the WORK *of* YEARS

THE LAYNE

MILLED GROOVE SCREEN IS THE *Development* OF 1/4th CENTURY

AND the Oil Industry has its most important invention — an achievement — and the developments of more than a quarter century of building screens and the solving of screening problems, the *Layne Milled Groove Screen.*

This "greater production" screen — guaranteeing from 33-1/3% to 100% increase— was recently proven by Pittsburgh Testing Laboratory to possess great tensile, collapsible, and end strength, having the ability to safely stand 8,000 feet of drill pipe.

The *Layne Milled Groove Screen* does not clog with mud or sand, avoids sand cutting, and is a tonic to low pressure wells.

Install *Layne Milled Groove Screen* instead of wishing you had.

Write, wire or phone for quick service, prices, catalogue or information.

The Layne & Bowler Co.
Houston Texas

Install Milled Groove Instead of Wishing You Had

The Layne New York Co., 30 Church St., New York
The Layne & Bowler Corp., Los Angeles, Calif.
Vickers, Limited, London, England

A QUARTER CENTURY OF EXPERIENCE AND DEVELOPMENT

Like the big Halliburton trucks, the Supervisors' cars are kept in perfect condition in Halliburton's shops—always ready to "get there somehow."

To assure adherence to the quality standards of the Halliburton Oil Well Cementing Co., a corps of Supervisors is ready, at a moment's notice, to travel to any point in the oil fields.

The duty of these Supervisors (seasoned cementing engineers, all of them) is to see to it that cementing contracts are fulfilled with skill and care; to make available to oil men the cementing knowledge gained through years of practical experience; to analyze *special problems* and suggest practical solutions.

Because eternal vigilance is the price of leadership, Halliburton guards with jealous care the reputation it has established.

HALLIBURTON
OIL WELL CEMENTING CO.
Duncan, Oklahoma

Containing information of interest to every oil man. THE CEMENTER will be sent to you free of all cost on receipt of the coupon.

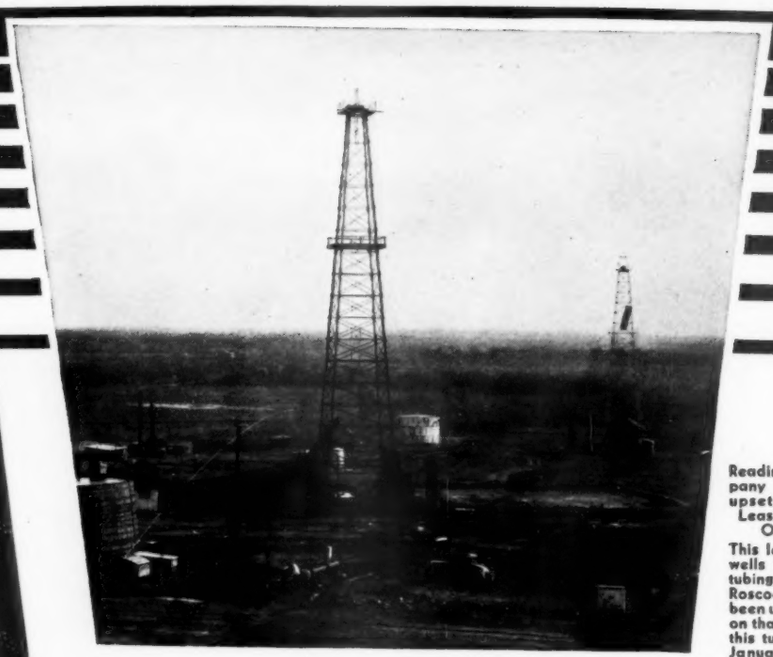
Halliburton Oil Well Cementing Co.
Dept. OW, Duncan, Okla.

Without cost or obligation, please place my name on the list to receive THE CEMENTER regularly as issued.

Name .....

Company .....

Address .....



Reading Iron Company tubing, 2½" upset, Frank Noe Lease, Earlsboro, Oklahoma.

This lease has two wells with Reading tubing moved from Roscoelease, having been used two years on that lease. When this tubing was run January 1, 1930, it was in perfect shape.

When Sucker Rods Gnaw— That's When You Need Reading 5-Point Tubing!

When sucker rods gnaw through tubing walls—when rapid rod wear means pulling jobs and heavy losses —that's when you need the extra protection of Reading Galvanized 5-Point Tubing.

For Reading Genuine Puddled Wrought Iron, the rust-resisting, better-threading tubing material, has proved, time and again, that it reduces rod wear on tubing walls. The thousands of silicious slag filaments—uniformly distributed in the structure of the metal—act as a buffer against destructive rod rubbing. Remember, too, that Reading Galvanized 5-Point Tubing will not crystallize, and that it holds more galvanizing than any other ferrous pipe material.

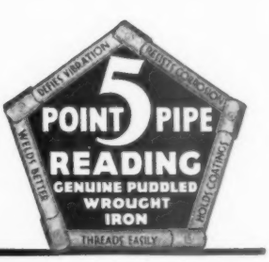
We'll be glad to give you complete data on Reading 5-Point Tubing, identified always by the Reading name and cut-in spiral mark.

As an added improvement, all Reading Galvanized Couplings for Reading 5-Point Tubing are now furnished with galvanized threads.

Reading pipe distributed by:
Frick-Reid Supply Corp.
Bradford Supply Co.
Republic Supply Co.
Superior Tube Co.
Our own stocks at Houston, Texas

READING IRON COMPANY
Reading, Pennsylvania

Atlanta . Baltimore . Cleveland . New York
Philadelphia . Boston . Cincinnati . St. Louis
Chicago . New Orleans . Buffalo . Houston
Tulsa . Seattle . San Francisco . Detroit
Pittsburgh . Los Angeles . Kansas City



GENUINE PUDDLED WROUGHT IRON
READING PIPE
DIAMETERS RANGING FROM ⅛ TO 20 INCHES

Science and Invention Have Never Found a Satisfactory Substitute for Genuine Puddled Wrought Iron

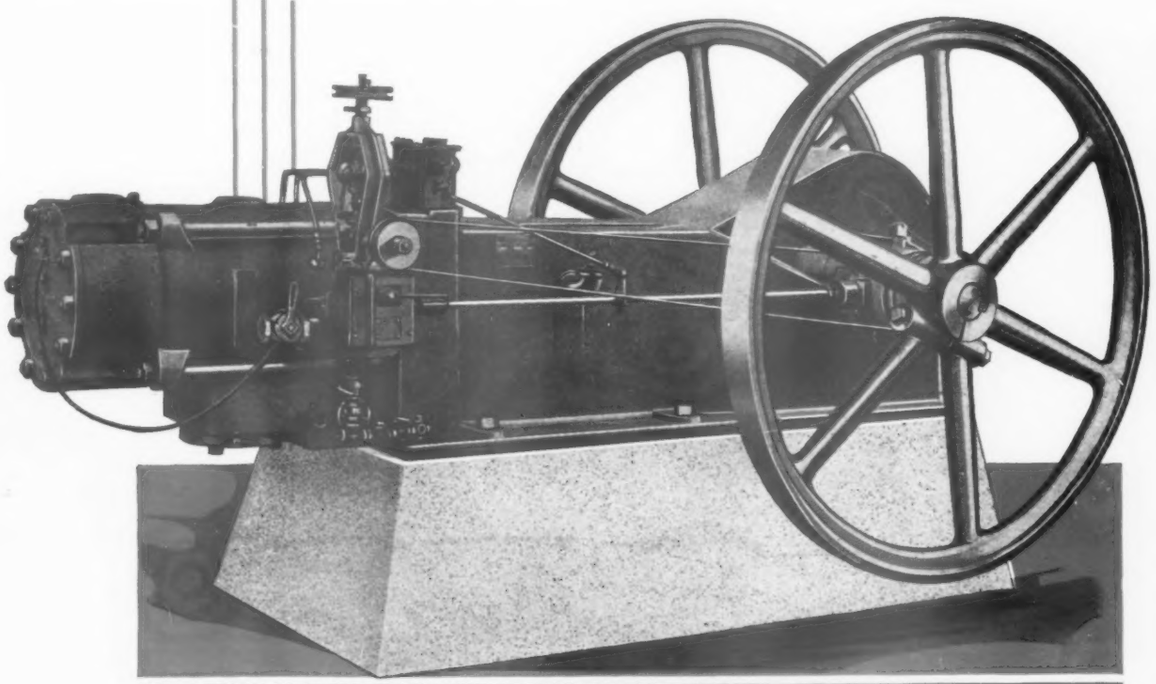
If your gas supply is weak or uncertain, use a gas engine that can be changed to oil in 90 minutes!

Your power dollar buys extras when it is invested in a Franklin Valveless O. G. Pumping Engine—extras in economy of fuel and of lubrication—extras in the way of efficiency and long life. And, in addition, when gas shortage occurs, it is readily convertible to oil fuel in less than 90 minutes. If you are a critical power buyer and user investigate through our distributors or write direct—know *all* the facts about this great engine.

Franklin Valveless Engine Co.
FRANKLIN, PENNA.

Distributed by

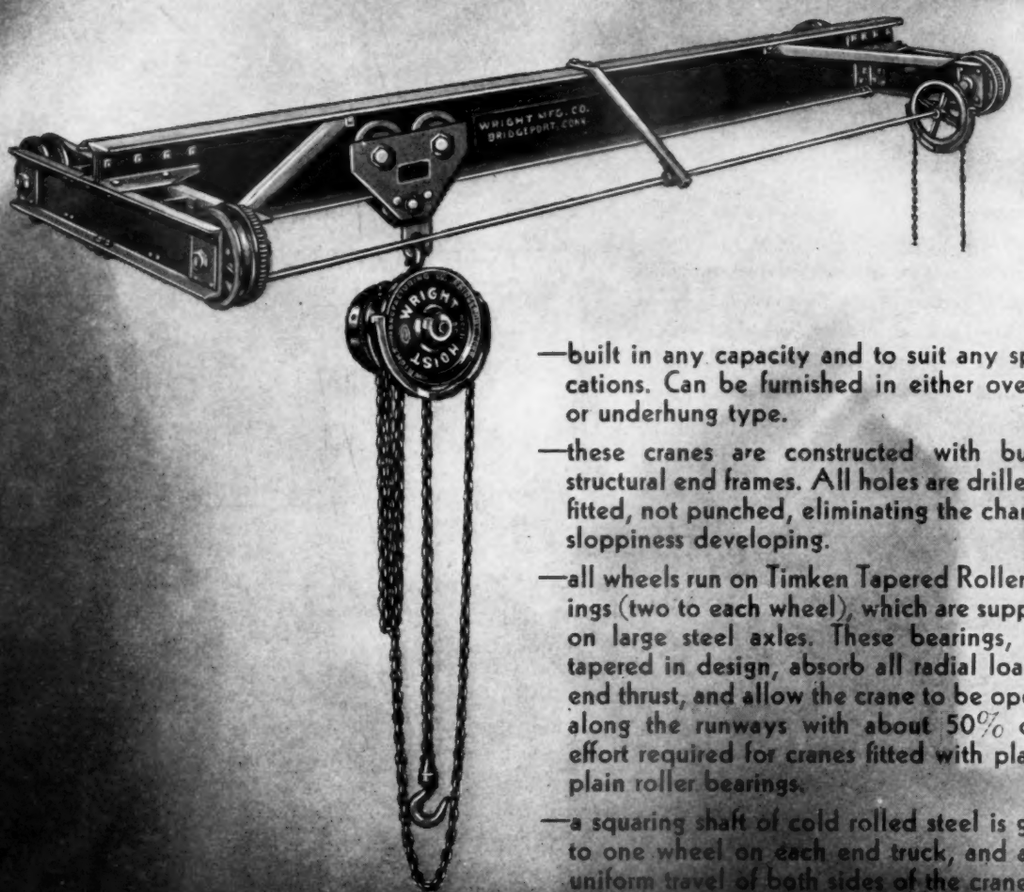
OIL WELL SUPPLY COMPANY



FRANKLIN VALVELESS O.G. PUMPING ENGINE

WRIGHT

HAND TRAVELING CRANES



—built in any capacity and to suit any specifications. Can be furnished in either overhead or underhung type.

—these cranes are constructed with built-up structural end frames. All holes are drilled and fitted, not punched, eliminating the chance of sloppiness developing.

—all wheels run on Timken Tapered Roller Bearings (two to each wheel), which are supported on large steel axles. These bearings, being tapered in design, absorb all radial load and end thrust, and allow the crane to be operated along the runways with about 50% of the effort required for cranes fitted with plain, or plain roller bearings.

—a squaring shaft of cold rolled steel is geared to one wheel on each end truck, and assures uniform travel of both sides of the crane.

CHAIN HOISTS—TROLLEYS—TRAVELING CRANES
—JIB CRANES—LOW HEAD ROOM TROLLEY
HOISTS—TWIN HOOK HOISTS—HAND WINCHES, Etc.

You can secure WRIGHT Equipment from your Jobber
WRITE FOR NEW CATALOG

WRIGHT MANUFACTURING COMPANY
BRIDGEPORT, CONNECTICUT.

ACCO
An Associate Company of American Chain Company, Inc.
In Business for Your Safety

THE OIL & GAS INDUSTRY PASSES JUDGMENT THAT

YOUNGSTOWN PIPE IS GOOD PIPE

"If Continental Sells It....There Is No Better"

THE CONTINENTAL SUPPLY COMPANY

General Offices: ST. LOUIS J721

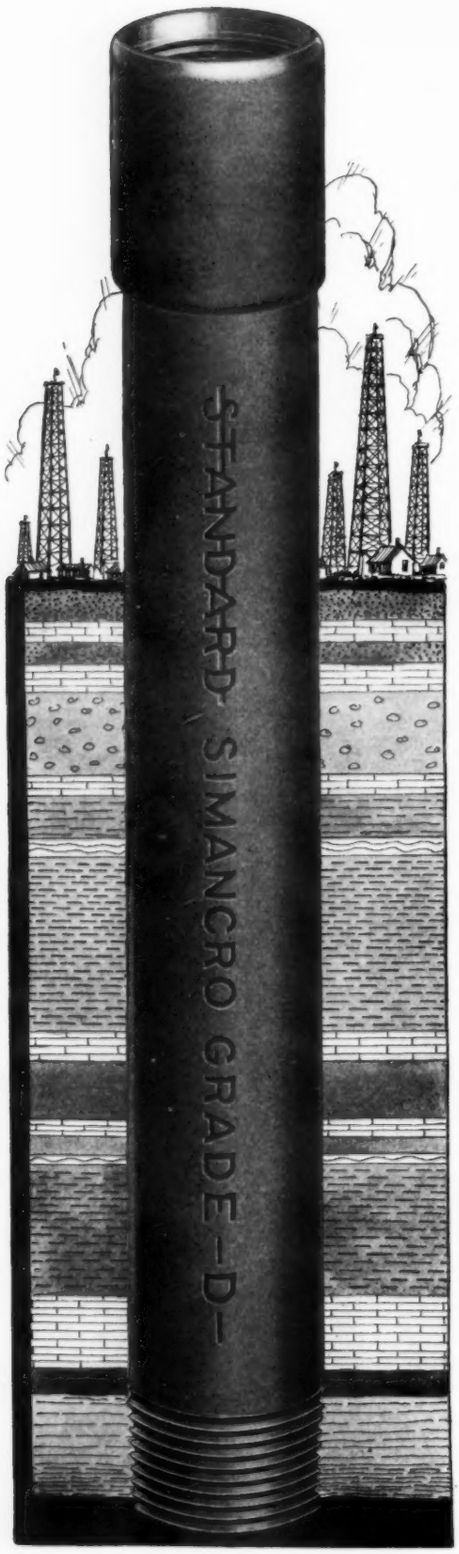
THE CONTINENTAL SUPPLY CO., LTD.
224 Traders Building, Calgary, Alberta, Canada

Export Offices: CONTINENTAL EMSCO COMPANY, INC. 74 Trinity Pl., New York

London Offices: 316-17 Dashwood House, Old Broad St., E. C. 2

CONTINENTAL EMSCO S. A. R., 7, Strada Eminescu, Ploesti, Romania

CONTINENTAL



DOWN!
DOWN!
DOWN!

Goes

SIMANCRO

New depths and new oil treasures are being safely reached with "Simancro"—the super-casing made especially for modern, deep drilling service.

"Simancro" is an alloy steel casing—an outstanding achievement in the art of modern metallurgy—so strong that you can drill to considerably greater depths than the limits of regular seamless casing and still enjoy the same factors of safety. Available in 95,000 pounds and 110,000 pounds minimum tensile grades.

There is only one "Simancro"—an exclusive product of this company—specify it for utmost safety and dependability in deep drilling.

SPANG, CHALFANT & CO., INC.

General Offices: CLARK BUILDING, PITTSBURGH, PA.

Sales Offices: CHICAGO, ILL. NEW YORK, N. Y. ST. LOUIS, MO. PITTSBURGH, PA. TULSA, OKLA. LOS ANGELES, CAL.
Welded Mills: ETNA, PENNA. SHARPSBURG, PENNA. *Seamless Mills:* AMBRIDGE, PENNA.

SINCE 1828

SPANG WELDED *and*
STANDARD SEAMLESS
OIL COUNTRY TUBULAR PRODUCTS

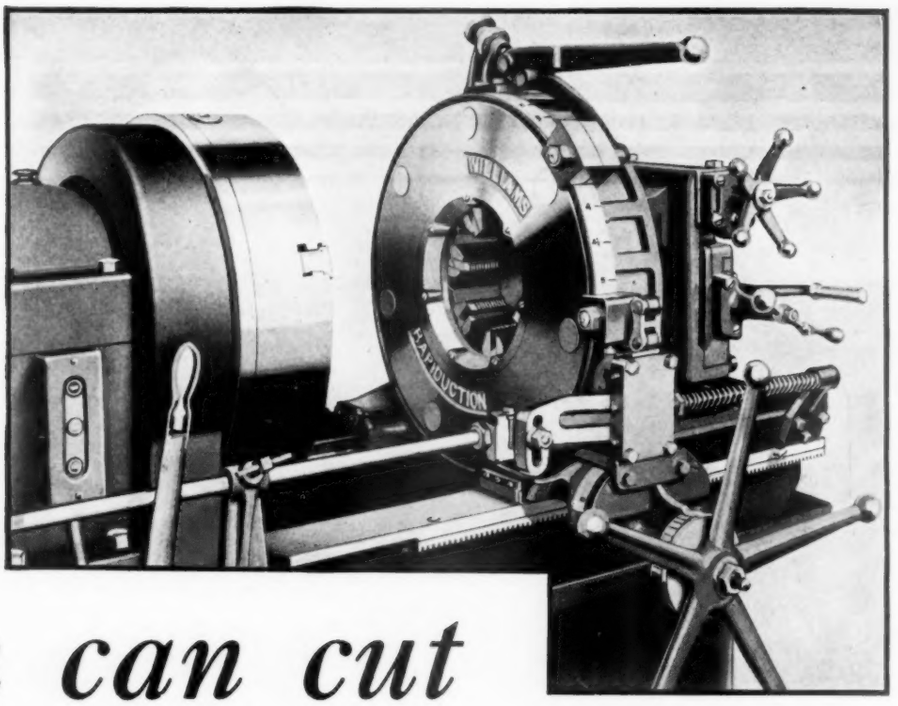
WICOS stand up

That is why 90 % of the pumping engines used in the petroleum industry are equipped with WICO Magnetos.

But WICO doesn't stop with making a good magneto. WICO maintains a complete factory branch at 121 West 8th Street, Tulsa, to insure efficient and prompt service on the thousands of WICOS in daily use.

WICO ELECTRIC COMPANY
Springfield, Mass.

WICO MAGNETOS



You can cut

A CORRECTLY TAPERED THREAD ANY LENGTH DESIRED WITH YOUR REGULAR DIES *with the* RAPIDUCTION *taper attachment*

You don't have to take the time to put in a set of special, expensive dies to get an extra long thread of correct taper on a Williams Rapiduction machine equipped with the receding attachment.

With this patented time-saver, the dies recede as the thread is being cut. Therefore, any length thread or taper you desire may be cut regardless of the width of the die. It is no longer necessary to have on hand a different set of full width dies for every extra-length thread you have to cut.

This exclusive Williams feature can be attached to any Rapiduction machine at a small cost. It does not interfere in any way with the regular operation of the machine, yet it is instantly available for the long-thread jobs. Your dealers will gladly give you full information on this and the Williams features that make the Rapiduction machine 25% faster than any other production pipe threader. Or if you wish for complete descriptive literature, write

Manufacturers of the Most Complete Line of Hand and Power Operated Pipe and Bolt Threading Equipment in the World

THE OSTER MANUFACTURING COMPANY — JOINED FOR GREATER SERVICE — WILLIAMS TOOL CORPORATION

Sales Office—2064 East 61st Place, Cleveland, Ohio

Branch Offices—Boston, New York, Philadelphia, Chicago

EMSCO STEEL EQUIPPED WELLS ARE SAFE

SAFE LOAD CAPACITY

195 TONS*

EMSCO TYPE "GB" CROWN BLOCK

(Designed for Mid-Continent Drilling)

BUILT primarily for use wherever the Mid-Continent system of drilling is used. All lines reeve straight without angularity, and the position of sheaves is such that the traveling block hangs directly in the center of the derrick. Large diameter (46") upper deck sheaves. Manganese steel casing line sheaves with grooves ground to high finish minimize bending stresses and wear on wire line. All sheaves mounted on heavy duty roller bearings retained in bronze cages and Alemite lubricated. For detailed information write for Bulletin No. 40.

*Extremely heavy structural steel construction provides unusual strength.

Upper Deck Beams	20" — 81.4 lb. I-Beams
Upper Deck Supporting Beams	12" — 45 lb. I-Beams
(Stiffened by Brackets at each end.)	
Base Beams	15" — 70 lb. I-Beams
Spacer Beams	12" — 20.7 lb. Channel
Upper Deck Shaft	6⅞" o. d.

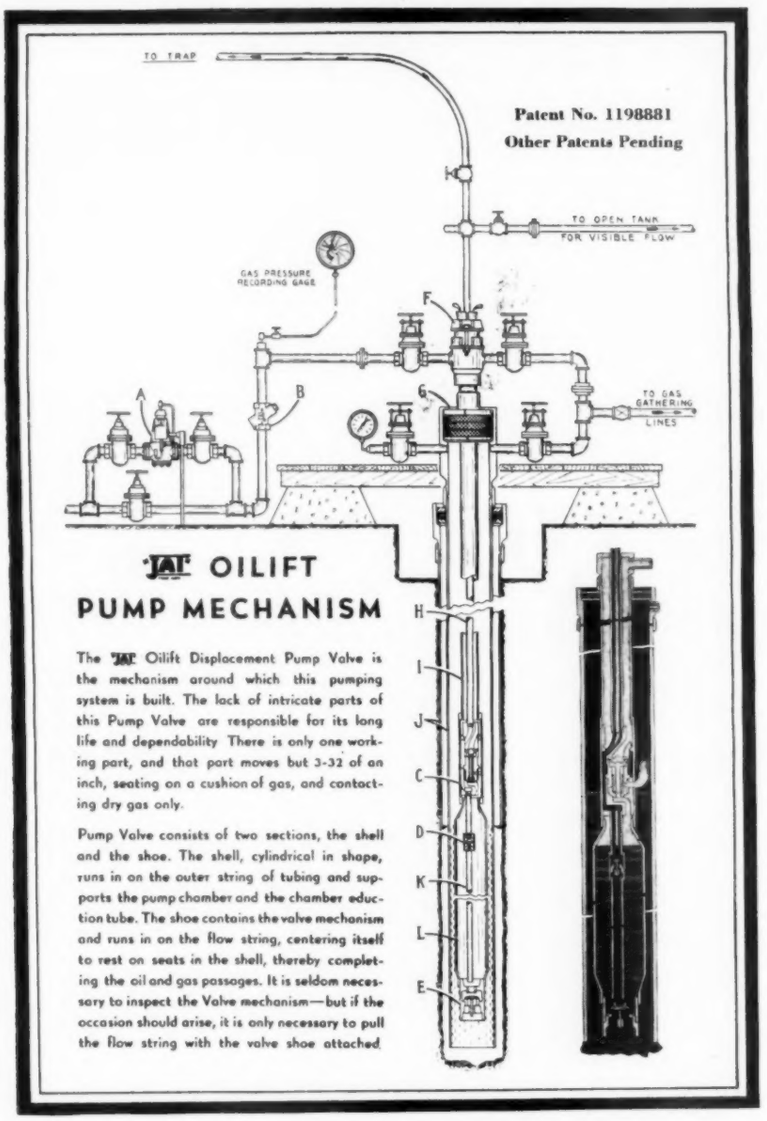
EMSCO DERRICK & EQUIPMENT CO.

6701-7101 SO. ALAMEDA ST. LOS ANGELES, CALIFORNIA

All Emsco and D & B Products (Except Derricks) Sold Exclusively in Mid-Continent Fields by The Continental Supply Company

Export Office:
CONTINENTAL EMSCO COMPANY, INC.,
74 Trinity Place, New York City

"JAT" PUMPING SYSTEM



"JAT" OILIFT PUMP MECHANISM

The "JAT" Oilift Displacement Pump Valve is the mechanism around which this pumping system is built. The lack of intricate parts of this Pump Valve are responsible for its long life and dependability. There is only one working part, and that part moves but 3-32 of an inch, seating on a cushion of gas, and contacting dry gas only.

Pump Valve consists of two sections, the shell and the shoe. The shell, cylindrical in shape, runs in on the outer string of tubing and supports the pump chamber and the chamber eduction tube. The shoe contains the valve mechanism and runs in on the flow string, centering itself to rest on seats in the shell, thereby completing the oil and gas passages. It is seldom necessary to inspect the Valve mechanism—but if the occasion should arise, it is only necessary to pull the flow string with the valve shoe attached.

ADVANTAGES

Will pump wells of any depth—crooked or straight.

Low lifting cost.

Increased production—due to continuous operation.

Not effected by sand.

Additional gasoline recovery from recycled gas.

Eliminates frequent pulling of wells.

Can pull vacuum or hold pressure on formation when the need arises.

Permanence of compressor plants assured.

Sucker rods and standard pumping equipment eliminated.

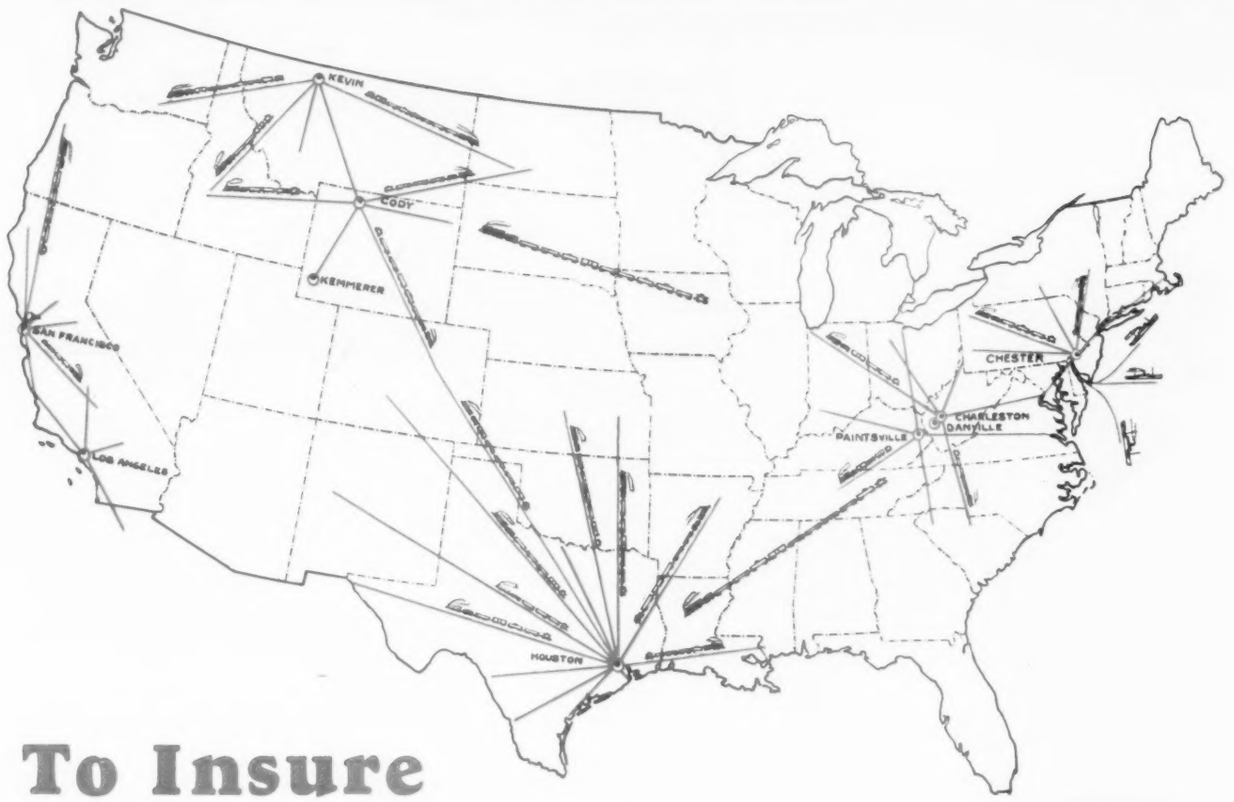
No wear on tubing or casing.

Descriptive Bulletin

No. 90

Sent on Request

THE NATIONAL SUPPLY COMPANIES



To Insure Prompt Service....

The South Chester Tube Company has established distributing centers throughout the oil and gas fields of the United States. We carry large stocks at Houston, Texas; Thenard, California; Cody and Kemmerer, Wyoming; Kevin, Montana; Paintsville, Kentucky; Charleston and Danville, W. Virginia. From these strategic distributing centers we can provide prompt service to most points in the oil fields with casings and line pipe.

It has been our aim, for over thirty years, to produce casing and line pipe of the highest quality and workmanship—and at the same time maintain the quickest and best service possible to every customer.

We also specialize in double length line pipe of which the welds are as strong as the metal of the pipe.

SOUTH CHESTER TUBE COMPANY—Chester, Pa.

District Sales Managers:

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J. P. Cooney, 715-716 A. G. Bartlett Bldg., Los Angeles
H. A. Morse, 30 Church Street, New York City
J. P. Steele, 305 Petroleum Bldg., Fort Worth, Texas

District Offices:

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H. S. Chancey, 2218 Mills St., Houston, Texas
E. L. Moseley, 3114 Tenth Street, Wichita Falls, Texas

District Warehouses:

Houston, Texas; Thenard, Calif.; San Francisco, Calif.

Distributors:

Prichard Supply Co., Mannington, W. Va. Mather and Waynesburg, Pa.

LeValley, McLeod, Kinkaid Co., Inc. Elmira and Olean, N. Y.

Petroleum Supply Co., Houston, Texas; Norphlet, Ark.

Wagner Supply Co., Fort Worth, Cross Plains, Breckenridge, Iraan, Wink, Forsan and Odessa, Texas

Pelican Well Tool & Supply Co., Shreveport, La.

United Oil Well Supply Co., 712 A. G. Barlett Bldg., Los Angeles, Calif.

Great Northern Tool & Supply Co., Billings and Kevin, Mont. Kemmerer and Cody, Wyo.

United Pipe & Supply Co., Charleston, W. Va., Danville, W. Va. West Hamlin, W. Va., Allen, Ky., Paintsville, Ky., Ashland, Ky., Prestonburg, Ky.

CHESTER

STEEL CASING LINE PIPE

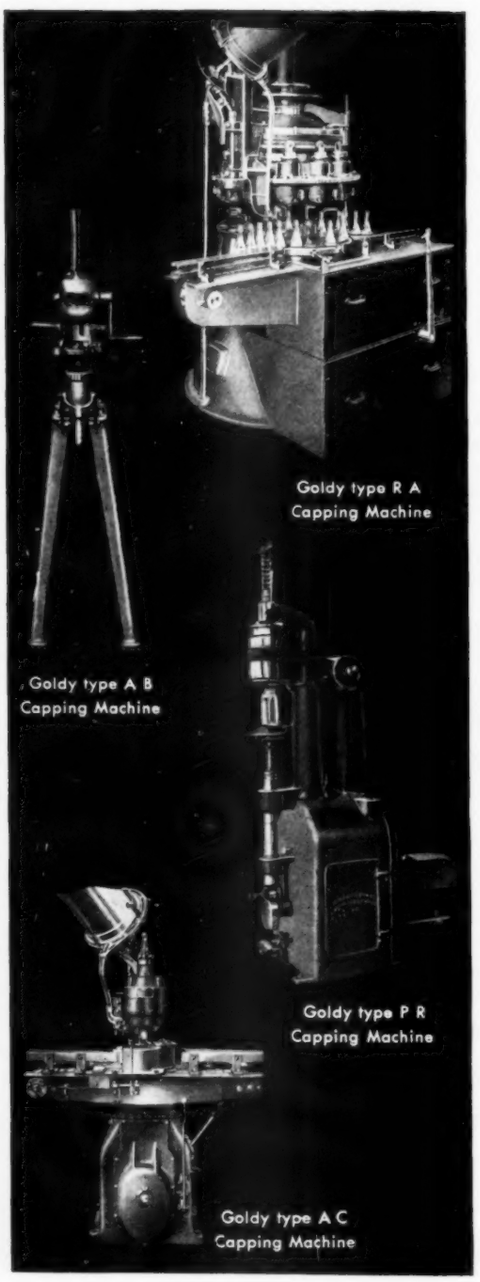
SPECIALISTS IN CASING FOR DEEP WELL DRILLING

Bottle fitted with "Goldy" Cap. Tamper-proof because cap is rolled—not loosely clamped—on the bottle neck.

"Goldy" Caps must be torn apart—completely destroyed—before the contents of the bottle can be used.

"Goldy" Tamper-Proof Caps

protect your brand from plant to point of purchase



In the fight against substitution the most important factor is the cap on your bottle. *The cap you use must be tamper-proof.*

"Goldy" Caps, made of a special grade of Alcoa Aluminum, are rolled by special sealing machines on to the neck of the bottle. Once on, they must be torn apart—totally destroyed—before the contents of the bottle can be used.

You put a Goldy Cap, carrying your registered trade mark, on the bottle that contains *your* oil. Your advertising tells the consumer to look for that cap—to notice particularly that it has to be destroyed in opening the bottle before *your* oil is put in his motor. No other cap gives both you and the consumer this 100% cap protection. This cap can be used once only. It cannot be used on a substitute oil. It is not necessary to maintain a cap return system or to otherwise check filling stations.

Goldy capping machines are available for any required production, and are only furnished to qualified Bulk stations.

Goldy type R A Machine is a complete automatic machine with a Goldy Cap production speed of 80 to 100 bottles per minute.

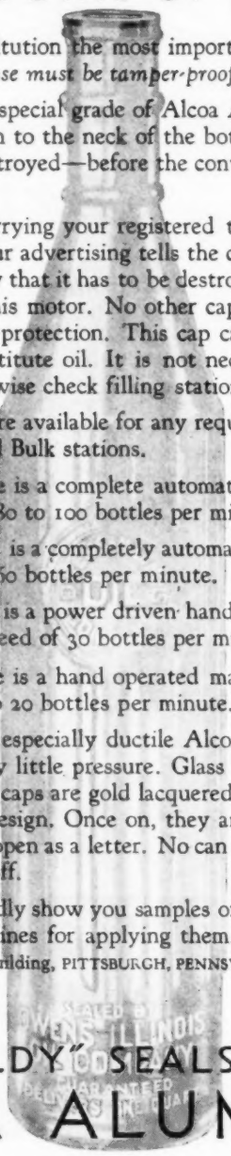
Goldy type A C Machine is a completely automatic machine with a Goldy Cap production speed of 60 bottles per minute.

Goldy type P R Machine is a power driven hand operated machine with a Goldy Cap production speed of 30 bottles per minute.

Goldy type A B Machine is a hand operated machine with a Goldy Cap production speed of 15 to 20 bottles per minute.

Goldy Caps are made of especially ductile Alcoa Aluminum, and are designed to go on with very little pressure. Glass breakage is kept at a surprisingly low figure. The caps are gold lacquered and can be printed with any desired trade mark design. Once on, they are tamper-proof, yet they are almost as easy to tear open as a letter. No can opener or other apparatus is necessary to get them off.

Our nearest office will gladly show you samples of Goldy Caps and give you data on the Goldy Machines for applying them. ALUMINUM COMPANY *of* AMERICA; 2419 Oliver Building, PITTSBURGH, PENNSYLVANIA.



"GOLDY" SEALS OF
ALCOA ALUMINUM

You Can Get J & L Pipe Quick

throughout This Vast Territory

When you need seamless or welded steel pipe quick—in an emergency—think of J & L. Every red dot on the map represents a J & L pipe stock adequate to supply emergency demands in the immediate vicinity. These stocks are carried in the yards of J & L pipe distributors, the Frick-Reid Supply Corporation, the Jarecki Manufacturing Company and the Norvell-Wilder Supply Company.

JONES & LAUGHLIN STEEL CORPORATION

AMERICAN IRON AND STEEL WORKS

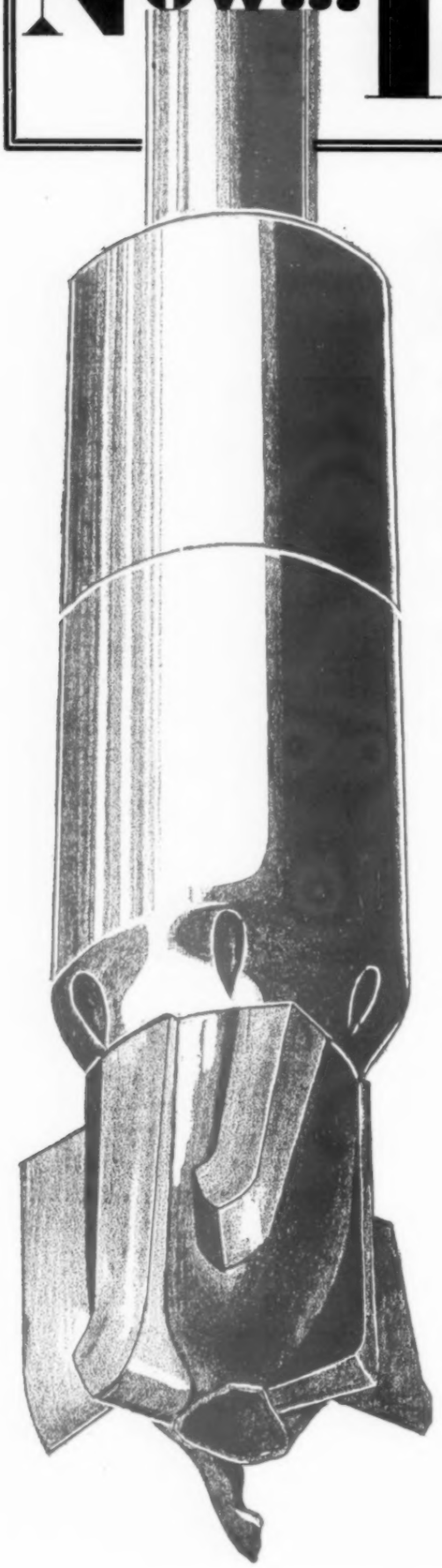
J&L STEEL

Manufacturers of Seamless and Welded Casing, Tubing, Drill Pipe and Line Pipe, and Welded Steam, Gas and Water Pipe in both Black and Galvanized.

Also makers of Bars, Shapes and Plates, Reinforcing Bars, Cold Finished Steel, Junior Beams, Steel Piling, Fabricated Structural Work, Steel Barges, Wire Products and Tin Mill Products.

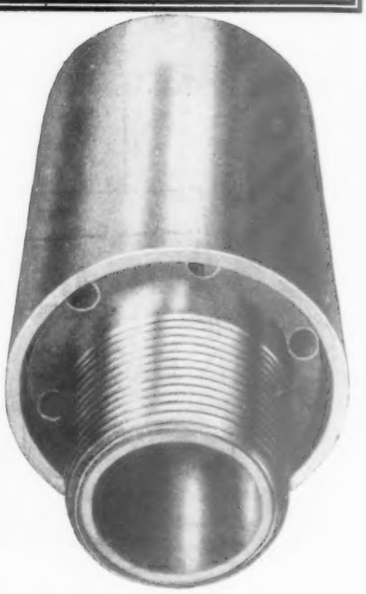
JONES & LAUGHLIN BUILDING, PITTSBURGH, PENNSYLVANIA

Now...Improved



Perfection Core Barrel

Your circulation is directly on the cutting edge of the bit in the new Type "M" Perfection Core Barrel. Keeping the cutting edge cool means more hole through hard formations. Any type "C" Perfection Core Barrel can be made into Type "M" by changing over to Type "M" bit body, which we will furnish free to any owner of Type "C" Barrel.

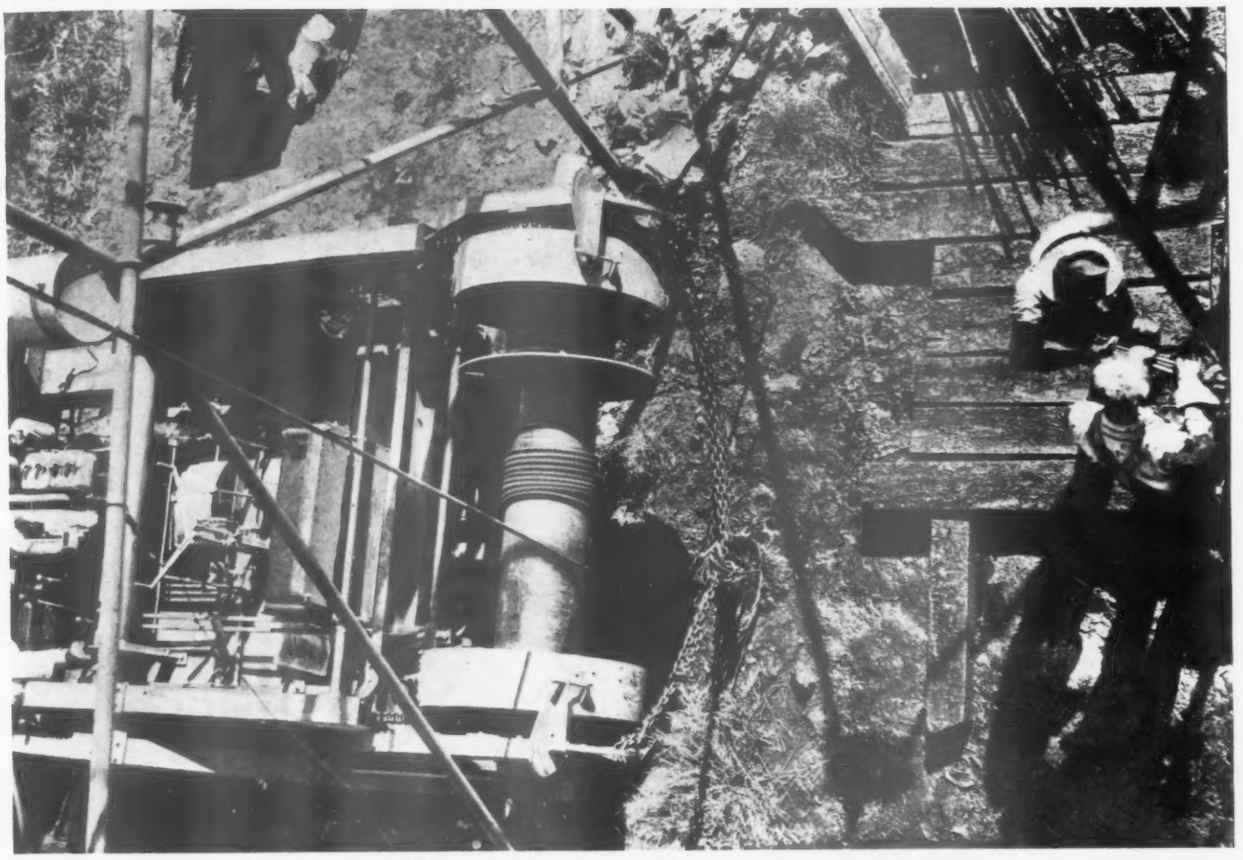


Other Brewster Products...

Include A. P. I. Shouldered Tool Joints; Perfection Core Barrels; Chrome Nickel Drill Collars; Special Fish Tail and Gumbo Bits; Core Barrel Cutter Heads for both hard and soft formations — hard formation cutter heads are faced with a substance of diamond-like hardness.

The Brewster COMPANY~INC.
Shreveport,Louisiana

COMPLETE STOCK carried at these warehouses: Iverson Specialty Co., Oklahoma City, phone 2-2833; Houston Store, 2000 Harrington St., phone Capitol 3021. *Distributors:* Wilson Supply Co., Houston, Beaumont and Luling, Texas; Continental Supply Co., all stores; Murray-Brooks Hardware Co., Lake Charles, Louisiana; T. T. Word Supply Co., Houston, Texas and Lake Charles, Louisiana; El Dorado Foundry, Machine & Supply Co., El Dorado, Arkansas.



the "CATERPILLAR" TRACTOR plus a WINCH*

TO AMAZING traction and dependable power you can now add the all 'round usefulness of a winch. The sturdy "Caterpillar," famous in the oil fields for hauling pipe, building roads, digging tanks, filling trenches, now can pull pipe and rods. The tractor can now keep busy the day through at a wide variety of tasks. The great number of "Caterpillars" at work in the world's oil fields prove its popularity.

** The winch in the picture is an Allsteel—the outfit is pulling a 2600-foot well with a single line near El Dorado, Kansas.*

Prices—f. o. b. Peoria, Illinois

TEN . .	$1100	TWENTY.	$1900
FIFTEEN .	$1450	THIRTY .	$2375
SIXTY . . .	$4175		

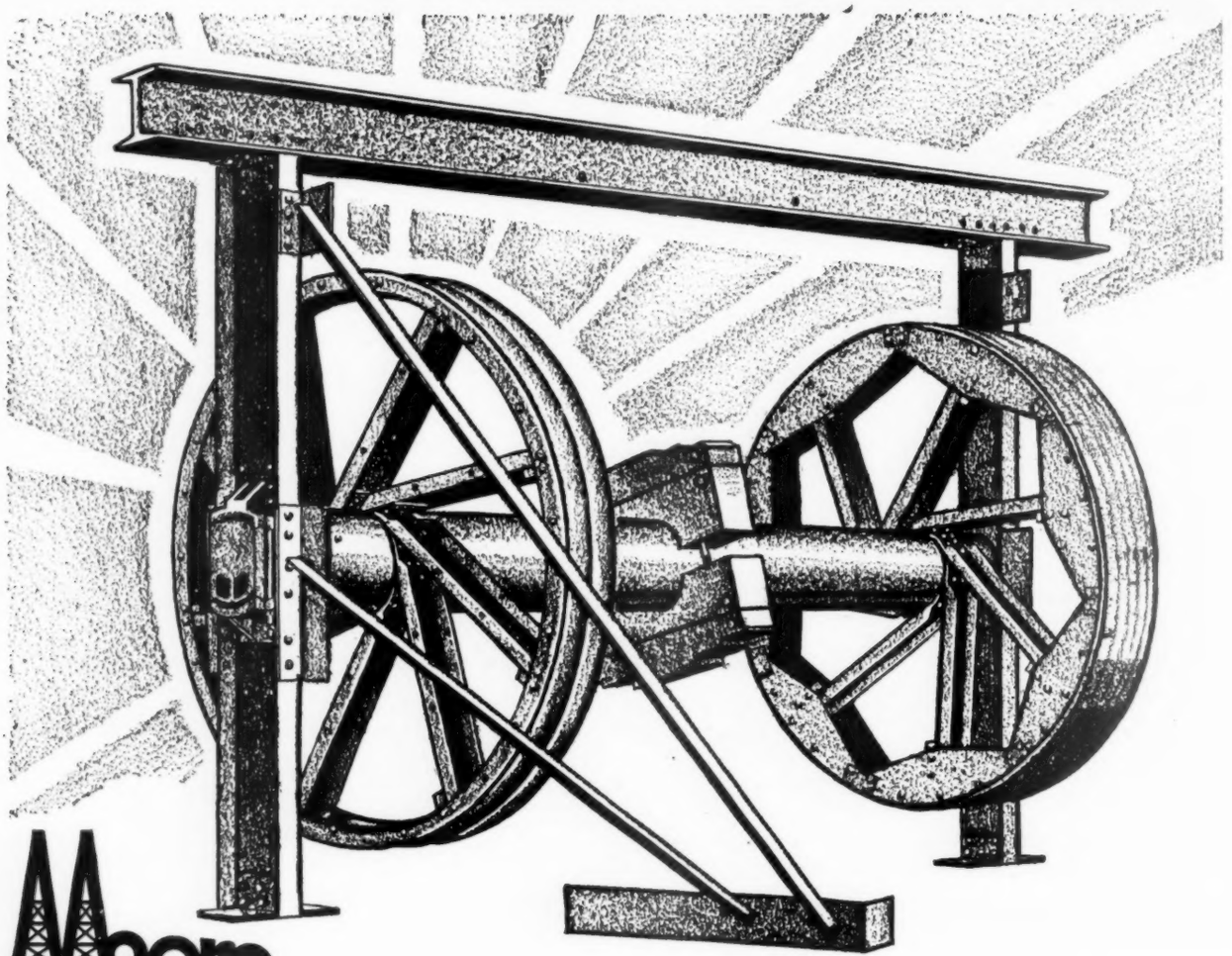
CATERPILLAR
REG. U.S. PAT. OFF.
TRACTOR

Caterpillar Tractor Co.

PEORIA, ILL. *and* SAN LEANDRO, CALIF., U. S. A.

Track-type Tractors Combines Road Machinery

(There's a "Caterpillar" Dealer Near You)



Moore

BULL & CALF WHEEL POSTS

AS GOOD AS THE CHAMPION DERRICK

The self-aligning bearings of these steel posts offer important advantages. Because of irregularities in a pipe shaft or deflection in a shaft under heavy load, the wheel trunnion often does not revolve on a true axis. In Moore posts, the bearing is free to align itself with the wheel trunnion, permitting the wheel to turn freely. This arrangement, together with the effective means of lubrication provided, give long life to the bearing surface. The babbitt lining lasts indefinitely. Bearings can be furnished with bronze bushings for extra heavy work.

Clip angles on the post bottoms attach either to wooden sills or to Moore steel sills. Bull Wheel Posts are made in light and heavy types; Calf Wheel Posts in the heavy type only.

Moore

ALL STEEL RIG EQUIPMENT

LEE C. MOORE AND COMPANY, INC.

PITTSBURGH Established 1907 TULSA

New York Offices: Oilfield Equipment Company, 30 Church Street, New York, N. Y.

DALLAS, TEXAS WICHITA, KANSAS CASPER, WYO.

SHREVEPORT, LA. HOUSTON, TEXAS

Stocks in All Principal Fields

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The OIL WEEKLY

Member Audit Bureau of Circulations

VOLUME 58, No. 9

AUGUST 15, 1930

Edited Weekly at Houston, Texas

SPENCER W. ROBINSON, EDITOR

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Copyright, 1930

Published Weekly

by

GULF PUBLISHING COMPANY

OFFICE OF PUBLICATION

3301 Buffalo Drive, Houston, Texas

R. L. DUDLEY, *President*

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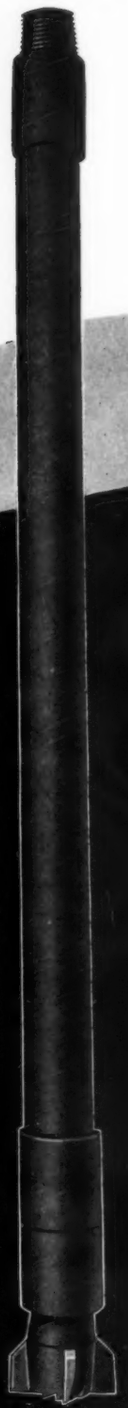
LOS ANGELES: 416-417 Haas Bldg., W. E. Green, Manager.

TULSA: 913-916 Hunt Bldg., J. F. Carter, Jr., Manager.

FORT WORTH: 203 W. T. Waggoner Bldg., H. H. King, Manager.

Issued Friday of each week. Single copies 15 cents. Subscription price: Domestic $1.00 a year, Foreign $1.00 a year. Subscription restricted to those engaged in the producing and pipe line branches of the oil business or the manufacture and distribution of oil field supplies. Advertising rates on application.

Perfect cores



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AUG 18 1930

THE OIL WEEKLY

VOLUME 58, NO. 9 AUGUST 15, 1930

Marginal Oilfields

Problems in Connection With Their Operation

By GEORGE O. SUMAN
Petroleum Engineer, Associated Oil Co.

IN Webster's dictionary we find marginal, under economics, defined as follows: "of or pertaining to a limit of change in economic conditions determining the point at which any given process, action, or the like, will cease to be or act."

The growing of wheat is often taken by economists as an example of the use of marginal lands in agriculture. During low wheat prices certain lands revert to idle or range land as they cannot be profitably planted to wheat due to their low yield and high production cost. However, with rising wheat prices these lands are gradually cultivated for wheat as the higher price permits a profit to be made notwithstanding the low yield. This type of land is referred to as marginal wheat land.

Applying the above definition to the oil industry we find marginal oil fields to be those fields which due to their low yield must in periods of low crude prices shut down or continue production operations at a loss. A close comparison cannot be made of marginal oil fields and agricultural lands, inasmuch as they present very different problems. For example an oil field—an oil reservoir—contains a certain quantity of oil so that each barrel produced diminishes by that amount the available supply for future production. On the other hand in agriculture it is a matter of harvesting crops at regular intervals from year to year.

Marginal oil fields are generally the older depleted fields whose production has during the course of years declined to a small yield. These fields show little or no profit after deducting all production costs during periods of low crude prices. Wells in this class have ordinarily paid off the drilling costs so that the problem is one of obtaining a net profit after deducting production costs. Co-related to this problem are the undrilled marginal oil lands which must remain undeveloped during low crude prices due to their inability to properly amortize the drilling costs.

Relation of Crude Price to Operation

A net profit is regularly made in flush and prolific oil fields where the cost of production is only a few cents per barrel.

Such is not the case, however, in the old and depleted fields of small production. During the course of falling prices the time comes when the margin of profit is very slender and further declines bring about a situation where operations must cease or continue at a loss. Operations

A problem in economics is presented by the many semi-depleted oil fields throughout the country, which, in time of low crude prices, cannot be operated profitably. Such areas are known as marginal oil fields. The author of this article, George O. Suman, herein presents the case of the marginal oil field, showing the relation of the crude price to the operation of such semi-depleted areas, and listing some of the methods employed in operating such areas under existing handicaps.

Economy measures include changes in surface equipment, redrills of oil strings, cutting down personnel or speeding up activity of existing personnel, the use of split strings of oilers, doing away with company boarding houses and rooming houses, increasing the speed of pumping, and cleaning out wells.

Difficulties in operation are presented and various ways of evading these difficulties are suggested.

cannot continue indefinitely at a loss and the operator has some rather difficult problems to solve when such situations arise.

For example, a drop in the price of crude from 75 cents to 50 cents per barrel would with a production cost of five cents per barrel mean a loss of 36 per cent of the former profit, whereas, with a production cost of 50 cents per barrel the loss would be 100 per cent.

Lease Requirements

Where the land is owned in fee the operator can produce or shut down at will as he sees fit. Also on fee land the operator can obviously maintain profitable operations at lower prices than when the land is leased, due to there being no deduction for royalty payments.

The operator on leased land must usually obtain the consent of the land owner before a shut down is possible. Sometimes the operator can shut down on leased land without consulting the land owner. This situation arises where there is a clause in the lease permitting a shut-down when crude oil prices decline to or below a certain figure. Such fortunate clauses are often not secured so that the operator must deal with the land owner. Permission to shut down is frequently difficult to obtain as the land owner desires to continue his regular monthly royalty payment. He does not bear any of the production cost charges so that he is inclined to desire continued operations. Sometimes by making certain cash payments to the land owner a shut down agreement is arrived at. In some cases due to the failure of all negotiations, the operator has quitclaimed the property.

Fixed Charges

Certain charges entering into the production cost unfortunately do not cease when an oil property is shut down. Taxes and insurance costs continue whether the property is idle or producing. Also a certain amount of supervision must still be maintained. Watchmen are employed to safeguard the shut down properties but even so there is oftentimes some pillage. The annual cutting down of weeds and brush must continue in some fields to reduce the fire hazard during the dry season of the year.

Depreciation

Depreciation of the surface and underground equipment continues at about the same rate whether the property is idle or producing. Derricks, buildings, and other surface equipment continue to deteriorate during a shut down period. Machinery, such as motors, machine shop tools, and so on, become obsolete and greatly reduce in value.

Automotive equipment, such as trucks, hoists, and other field cars, must be transferred to other active properties or sold, as they would within a few years have little value even though not used.

Corrosion of the casing in the wells will continue when they are shut down. In fact in some cases it may be much greater in the shut down wells, due to the constant contact of the water with the casing and at a higher level if the water rises in the hole.

Effect on the Oil Zone

The water situation in the old and depleted oil fields varies from field to field. Ordinarily there is a certain amount of water trouble, due to edge water creeping in, ineffective shutting off of top water with the water string permitting some leak, ineffective plugging jobs on bottom water, and corroded or damaged water strings permitting water to enter through the casing. Except for the first named, which cannot be stopped, more or less work has been done, according to the operator, to correct this water invasion. Obvious jobs where water is coming through the water string are speedily taken care of with packers run in on casing. Oftentimes, however, a certain amount of water must be produced as the source of the water cannot be determined and a considerable outlay cannot be made to experiment around among the wells as the production cannot stand the expense. The oil measures are not, however, drowned out as the surface pumping equipment is designed to produce an amount of water sufficient to hold the fluid level down to the same constant level so that the same amount of water is produced as is flooding into the oil measures.

With the shutting down of the wells it is obvious that conditions underground do not remain in status quo. Water continues to flood into the oil measures and the higher the head of the water the more effective the flooding operation becomes. The tendency of the water is to follow the course of least resistance which will naturally be to spread out and flood the porous and most depleted sands first, but eventually, as this is accomplished, it will seek its level in the well.

Realizing this situation the operator of a watered property is loathe to shut down his property. In case of a shut down and the longer it continues the more dubious he becomes as to the possibility of lifting off this surplus water. What percentage of the former production can be regained, how long it will take to regain this per cent, and what measures will have to be adopted to regain it, become rather perplexing problems for him to contemplate.

Drainage

Production from an oil zone varies in an oil field according to the location of the well structurally in the pool. Also the mechanical condition of the well affects its production. It is, therefore, found that certain properties due to their higher production, can continue producing at a profit, whereas, other adjacent properties must shut down or produce at a loss. The operator shutting down does so under these conditions, realizing that there will be some drainage of his oil supply to other properties and the ultimate production from his land thereby lessened by that amount.

There are conditions quite different from the above met by the shutting down of certain properties in fields producing some water with the oil. Under these conditions the shut down properties cease to lift their former portion of the water and this water migrates to other producing properties, sometimes flooding them out to such an

extent that their oil production is greatly reduced. This reduction in oil production sometimes is sufficiently severe to place the producing property in the non-profit class so that it is also forced to shut down.

Economy Measures to Permit Operation

Having in mind all of the above it is not surprising that the operator, when crude prices are low, desires to continue producing at little or no profit and even at a loss for a time if conditions indicate some improvement in the not too distant future.

Economy measures are now put into effect. Changes in surface equipment involving a considerable outlay of money, although permitting some reduction of production cost cannot usually now be made, as the margin of profit will not pay for this expenditure within a reasonable length of time. In fact the operator desires most to avoid measures which call for any considerable outlay of money. It is a time for conserving cash, not for spending it. Minor changes involving small expenditures are made.

Re-drills of oil strings are made only when the expected results are thought to be excellent. Abandonment of well jobs are simplified as much as possible, and although not conforming to the standards of prosperous times, are trusted to satisfactorily take care of the situation.

The most effective and greatest savings can sometimes be made by cutting down in number and speeding up the men on the working force. Such procedure calls for no outlay of money and at the same time permits a considerable saving. So, for both of these reasons it is one of the principal expedients in times of distress. Supposing the wages per man to average $180.000 per month, then with 50 cents per barrel oil each man must produce 360 barrels of oil per month to simply pay his wages, let alone other expenditures incidental to the operation of the property. If a man can be laid off and the 360 barrels of oil or a portion thereof produced without him, then the operator has a net gain at the end of each month.

Split strings of oilers are sometimes resorted to. Instead of having oilers on duty 24 hours per day, it is reduced to eight or 16 hours per day. In the fields where this has been done it has been found that any costs for overhauling machinery and losses of production caused by inattention in these daily periods of no attention are slight compared to the reduction of labor costs. Also oilers are sometimes given more territory to cover either on foot or by supplying cars, thus oftentimes doing away completely with another string of oilers.

Company houses and boarding houses are sometimes done away with, especially where the rent and board charged does not meet with the outlay of the company in maintaining these facilities.

The speed at which the wells are pumped is sometimes greatly reduced, it having been found that the wells are operating at a much higher speed than is necessary to produce the oil which is coming into the hole. A saving is made in this way in the power bill and also in the wear and tear on the equipment.

The cleaning out of wells and the changing of pumps is less frequently done and oftentimes without any material dropping off of production. Any decrease in production is often found to be more than compensated for by the reduction in labor, equipment, and fuel costs. The maintenance of a well must be viewed from the standpoint of profits resulting therefrom. A small production from a well may oftentimes result in greater profits to the operator. Heavy maintenance charges, although resulting in increased production, are sometimes not economic, as the increase in production does not pay for the extra cost involved. Where these costs are excessive they may entirely wipe out the possibility of securing a profit from the entire output of the well.

These and other economy measures are put into effect as the operator has lower prices for crude offered. With a raise in crude prices many of these economy measures are retained, the operator having learned that the property could be operated satisfactorily under this new arrangement.

Co-related to these changes are the consolidation of small holdings either by selling out to larger operators or pooling of properties under one head to reduce operating expenses. On the other hand, there is the farming out or sub-leasing by large operators of small blocks to individuals on the theory that closer attention and more intensive effort by the individual may result in more profit to the operator.

Shutdown

Despite all of these measures, the operator is sometimes forced to shut down due to losses incurred in operating. In case the property is retained it is a matter of bearing what expenses he must as above noted and trusting that with more favorable crude prices the field can be brought back to a profitable production.

It is a difficult situation to face. New and prolific oil fields are constantly being brought in here, there, and everywhere. The question uppermost in his mind is how long is this situation going to last? Projecting the decline curve of his property into the future he estimates that thousands or millions of barrels of oil—depending on the productivity of his particular property—could be produced with a favorable price for crude oil.

Conclusion

There is a considerable difference of opinion as to the proper place of the marginal oil field in the affairs of the industry.

On the one side we have those who believe that the price of crude should be maintained at a sufficiently high level to permit the continued operation of these fields and therefore continued realization of profit from them. They are opposed to the conservation of the oil in these fields. They do not approve of deferring the profits of operators holding such shut down properties. The financial losses experienced by these operators and possible damage to such oil reservoirs is, in their opinion, wrong.

On the other hand, there are those who believe that such shut-in production constitutes a reserve to be drawn on in times of a shortage of production. The conservation of this oil to be used at some future date when desired or needed is believed to be the proper procedure from a national viewpoint. The benefits of the program of conservation are claimed to outweigh any such damages as may result to these fields or to the operators of them. The financial losses of these operators are viewed in the same way as those operators in other fields of endeavor who are forced to suspend operations at times due to economic conditions, examples of which can be readily called to mind in the mining, manufacturing and agricultural industries.

Care Should Be Taken In Dressing Bits

Data from experimental drilling shows value of having bits in correct alignment

By BRAD MILLS
Staff Representative

THE importance of dressing bits on center has long been recognized in California, but it required the development of extremely deep producing zones to prove the necessity of the practice and establish the value of correct alignment. Fish-tail bits probably have been responsible for most of the grief experienced through deviation from the center of gravity, but an investigation discloses several instances where crooked holes and poor core recoveries have been charged directly to failure of other types of bits to be dressed or machined correctly.

The fish-tail bit is regarded as the greatest offender for several reasons. This type offers greatest leeway from the standpoint of design, is often dressed in shops not equipped properly, is not sponsored or inspected by an organization such as maintains service on patented type bits, is abused most before coring is necessary and is in most common use in soft formations near the top of the hole. The machined type of bits can cause much trouble, however, even if off center only a fraction of an inch, petroleum engineers have found.

Much trouble laid at the door of bits supposedly not dressed true to gauge has been traced to other defects. Wear and strain sometimes results in throwing bits out of line, the examination after use failing to reveal the true reasons for crooked holes or other defects.

Methods used in lining up bits vary slightly, with the large machine shops employing more scientific means than the small company or field shops. Where the eye was once the lining medium, the lathe and caliper are used for correct dressing. Discovery that deviation of less than one inch from center may lead to a serious wobbling effect has done much to eliminate haphazard dressing methods, with all types of bits falling under a closer inspection.

Since it is impossible to ascertain exactly what happens in a hole under various conditions, positive deductions as to the percentage of crooked holes caused by poorly dressed bits, or even the relative importance of proper aligning as compared to other mechanical defects, is out of the question. There is no way to create surface conditions similar to those encountered in the hole so that the action of the tools may be observed, although one major company has experienced a great deal with a miniature drilling outfit at Santa Fe Springs.

Differences of Opinion

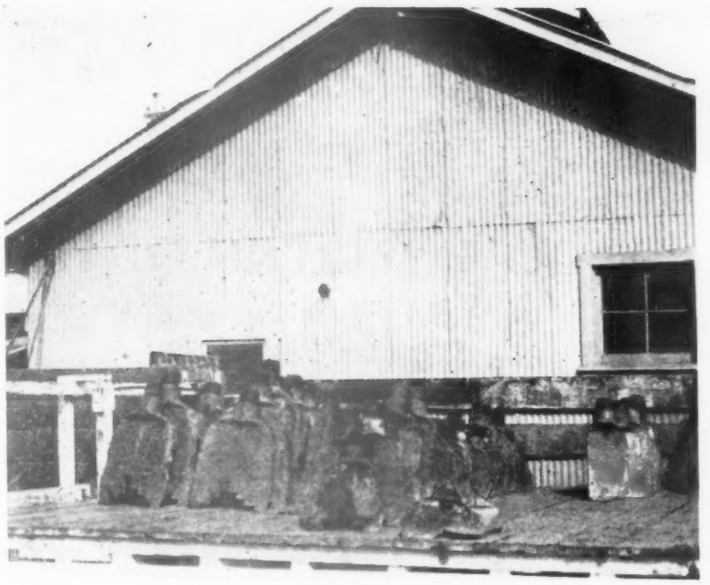
Widely different opinions held by petroleum engineers and field superintendents concerning the importance of straight bits are a confusing factor when reasons for crooked holes are being sought. One superintendent at Santa Fe Springs expressed the belief that a fish-tail bit could be dressed true enough to gauge with the eye to drill a straight hole under all ordinary conditions, provided other rules were not broken. An engineer for a major company in the same field claimed that a core bit only slightly off center had recovered only very slender cores, due to failure to rotate concentrically with the drill pipe axis. Many of the reasons advanced are based on theory, however, but opinions that a bit may be considerably off center and yet drill a straight hole

Concrete and clay blocks used with an experimental drilling outfit at Santa Fe Springs

are confined chiefly to practical field men who drilled before the value of exact measurements was known. This does not mean that the field trained man in California is not able to advance as logical conclusions as the college trained engineer.

About a year ago Union Oil Company built a miniature experimental rig at Santa Fe Springs and assembled a complete string of rotary tools. While the primary purpose of this layout was not to ascertain the action of bits dressed in various ways, much was learned from a study of the blocks drilled through. An effort was made to create conditions which would be found in the average well, but there is no way to determine whether this was accomplished.

Besides the small steel derrick, the outfit consists of a one-half horsepower electric motor, rotary table, one-inch kelly, small swivel, tow-inch pipe below the elevated platform to duplicate casing, one-fourth-inch to one-half-inch drill pipe, two-inch and three-inch bits and other equipment in proportion. This outfit as nearly represents conditions underground as it is possible to create, but there is probably a uniformity which would not be present under bad conditions while actually drilling.



Bits of all sizes at a Santa Fe Springs warehouse

Experimental Drilling

Nearly every phase of drilling was studied and reproduced with the experimental outfit, but only some of the observations affecting the action of bits will be discussed. As interesting as the merits of certain types of bits in various formations were, it is rather the value of bits dressed true to gauge with which we are concerned. Rectangular blocks about 10 x 10 x 30 inches were made from cement and other materials to provide an artificial formation which would compare favorably with those found in drilling. Those blocks were drilled straight and at various angles to ascertain the action of a bit where the formation is plunging or tilting. Subsequent splitting of these blocks disclosed the action of the bits, regardless of whether exactly the same thing would have happened in a hole under similar conditions.

The fact that bits were not deliberately dressed off center makes the application of these experiments to crooked holes caused by unbalanced bits less direct than they might be. It was found, however, that where bits were "heavy" on one side, the hole reflected this unbalanced condition. Shelving, oblong or flat holes and slight deviation from the vertical were in evidence when the blocks were examined. In some instances the diameter of the hole was almost exactly correct when measured one way, but far too large when measured another. The "swinging" action of the bit, when apparently not rotating concentrically with the axis of the drill pipe, often cut a much larger hole than necessary. Shelving was not an uncommon trouble, but other defects were probably largely responsible for this condition.

A leading drilling contractor at Santa Fe Springs believes that bits dressed off center cause most trouble when crowded. It is under such a condition that this defect combines with other factors to cause crooked holes. He stated that dressing of bits only slightly out of line might do little harm if placed in the hands of a careful driller.

Core Bits

A petroleum engineer for a large oil company operating at Santa Fe Springs observed that core recoveries had been far from satisfactory in one of the deep sand tests. The core bits were supposedly machined true to gauge, but the engineer insisted that a check be made. An examination disclosed a slight deviation from center in the core drill. This was corrected and good cores followed. Cores obtained with the imperfect bits were much smaller than the inside of the core barrel, often tapering down to one inch in diameter. It was discovered that the wobbling of the bit was wearing away the cores while and after cutting them. In the soft formations, the cores were completely dissipated, while in the harder sands and shales the very slender recoveries were made.

The company manufacturing the core bit perfected and installed machines to measure and dress down the bit bodies. This practice improved the quality and uniformity of the cores recovered. Previous complaints that deviation of bits had reduced the value of coring seemed well founded, judging from these experiences at Santa Fe Springs. In the smaller size core bits, only a slight deviation from a concentric rotation with the drill pipe is required to wear away the cores, where the formation is not favorable to core recoveries.

One of the outstanding examples of the effect of drilling with an unbalanced bit was the discovery some time ago of a form or core in a well at Santa Fe Springs. This test was being drilled with a fish-tail bit and after it was evident that a heavy strain had made its appearance, the tools stuck in the hole. The bit, already off center, probably became so unbalanced that it started drilling around a small cone. As pressure was applied this "walking around" process became more pronounced, and soon a large cone was made. As soon as this center of obstruction was enlarged to a certain point, the bit refused to turn freely. Another bit was run into the hole to knock off or drill out the center cone to bottom. This was a rare case and probably was partially caused by other mechanical defects, as well as a desire to drill too rapidly.

A tendency for crooked fish-tail bits to "slip around" a center cone is sometimes apparent, but such an inclination can never become a reality because no formation is strong enough to withstand such treatment. There is a natural breaking off, resulting in a flat hole or one considerably larger than the diameter of the bit. This slipping generates more wear than would be in evidence where rotation of the bit was concentric with that of the drill pipe.

General Petroleum Corporation has developed an advanced method of dressing bits at its Vernon shops. After a straightening sub is used, the bit is placed in a horizontal position and lined up carefully. This applies to ordinary fish-tail bits. Reaming bits are placed in a lathe, the pin recut and the body of the bit "spotted" in two places to insure a correct lining up. Other major companies are dressing all drilling bits with utmost precision.

All other factors being favorable, a bit dressed slightly off center might cause little trouble; but in the haste to reach the producing sand and where other mechanical defects might be present, a small deviation from center might combine with other influences to develop a crooked hole.

Astra-Romana's Operations

Meeting local problems as they arise with local ingenuiety and applying experience from afar . .

Show Marks of Internationalism

By ROY E. LEIGH
Special Foreign Representative

AFTER having studied oil operations in some 12 different countries, I pride myself on being able to recognize certain outward signs or symbols of a good operator. One of these is cleanliness and order around the property. Capable operating executives some times leave junk and debris lying around, perhaps only temporarily; but I find that to be the exception rather than the rule. Whereas, on the contrary, it is one of the ear-marks of a poor operator.

It is not my function to judge the capabilities of oil operators with whom I come in contact; but, as I see all sorts, good, bad, and indifferent, personal impressions crowd themselves upon me unbidden.

"Score one for Chaillet," I recorded on my private mental ledger as I drove up to his office and found it surrounded by a clean well-kept lawn, with roses in full bloom. Roses, one might say, have nothing to do with the production of oil; but, in connection with a general policy of cleanliness and order, they have much to do with the esprit de corps of an organization. How, for example, can a boss whose office and surroundings are unkempt and untidy consistently expect different conditions out on the field?

M. Chaillet received me cordially, and spoke my language with a facile fluency which I had found very gratifying. In the course of half an hour in his office, I heard him speak German to some of his associates and Roumanian to others. I also had occasion to test him in Spanish, in which tongue I found him equally proficient. I mention this because (with the continued internationalization of the oil industry, a command of languages is coming to be one of the prerequisites of foreign service. Score two for Chaillet.

I had come to ask of M. Chaillet details of the extremely high pressures encountered in the new field at Boldesti and in the comparatively new deep sands at Moreni and Gura Ocnitei. As he displayed complete and well-kept graphic well-logs, I noted that old wells drilled prior to his regime as field manager were cased with six and seven different strings of pipe, whereas wells of recent completion were finished with only two strings. It was explained that the local mine authorities, accustomed as they were to percussion drilling methods and unacquainted with the sealing effect of rotary mud and cement jackets, formerly required that every water sand be cased off with a separate string of pipe. Score three for Chaillet. Score heavily; thousands of dollars worth of pipe saved on every well.

JEAN LOUIS CHAILLET

FIELD SUPERINTENDENT, ASTRA-ROMANA, MORENI, ROUMANIA

". . . a Frenchman who has been around—Venezuela - Texas—He is a stem-winder; but wait, you will see," was a comment the author heard before he entered Roumania

As we got into his car for a hurried trip around the field, I noted a little satchel strapped onto the back of the front seat. "What is that?" I asked, as it is my business to be inquisitive.

"First-aid kit."

Always prepared. Score again. One never can tell what accidents may happen when man pits his puny strength against the unleashed forces of nature.

I knew by then what to expect, and was not at all surprised when I stepped onto the derrick of a pumping well and found it swept as clean as a ball-room floor. No junk lying around, to cause injuries and accidents to workmen; no debris for roustabouts and pumpers to trip and stumble over, with broken limbs as the possible consequence.

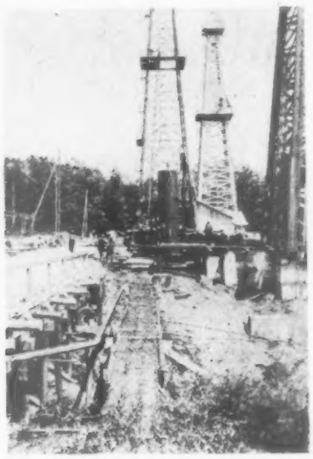
I noted, also, that his flow tanks were all gas-tight, neatly painted, and all connected up in accordance with a standard plan. In striking contrast to the open wooden tanks seen on the properties of less progressive operators.

But I came to investigate pressures. These little items are only incidental, except as they indicate the character of the men and organizations who can handle bigger problems—such, for example, as pressures of 2500 pounds per square inch.

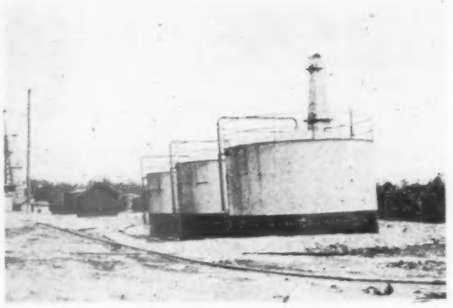
I was very interested in M. Chaillet's account of his first encounter with pressures of this degree. It happened in July, 1928, in Astra Well No. 288, which tapped the Third Meotic sand and came in with a pressure of 172 atmospheres, or approximately 2528 pounds. The release of such tremendous pressure brought about a new problem in drilling operations, that of freezing in the flow lines and gas traps. The flow line from Well No. 288, for example, was covered with ice to a distance of 300 feet from the casing-head. Paraffin oil congealed into wax, and rotary mud into hard pellets of ice, which, in spite of the application of an external spray of steam resorted to in the emergency, caused the flow lines and gas traps to become congested, which in turn caused the bursting of a valve and loss of control. The wild well caught fire and caused tremendous losses; but we are not so much interested in that as in methods which have been devised to prevent a repetition.

Nowdays, Astra's Christmas trees are made up of valves and fittings which are bought under 3000-pound specifications and then subjected to a supplementary test on the ground of 3750 pounds hydrostatic pressure. These Christmas trees are assembled and tested in the company's shops, where all facili-

Astra-Romana Company's office at Moreni, Roumania. On the Astra properties, every derrick floor is as well kept as this front lawn

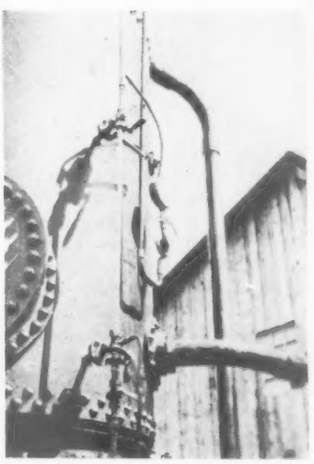


(In foreground) Showing method of insulating pipe lines to protect them from the extreme cold of the Roumanian winter. (In background) Home-made steel derrick and gas trap, Astra-Roma, Moreni

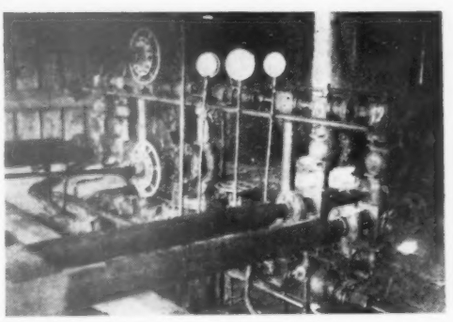


Modern gas-tight flow tanks on Bana lease owned by Astra-Romana Company at Moreni, Roumania

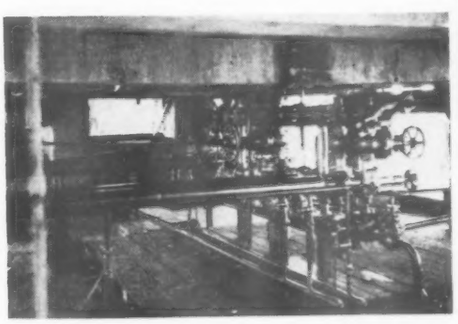
Hydraulic mud-mixing "gun" of the type used by Shell subsidiaries in Venezuela and Roumania



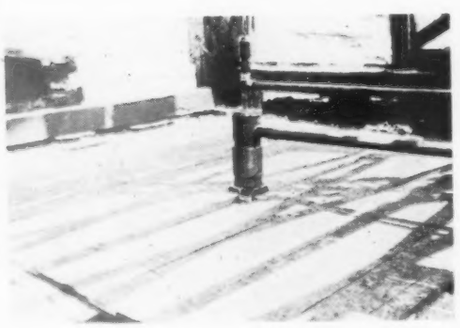
Even the gauge glasses must be fitted with steam lines to prevent the congealing of paraffinous Roumanian crude. Picture shows copper steam tube running through gauge glass of gas trap on Astra-Romana's property at Moreni, Roumania



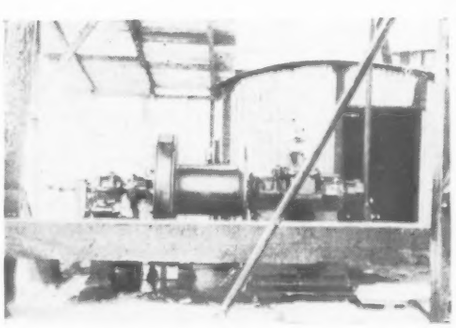
Hook-up of central equipment on high-pressure deep well on Astra-Romana property at Moreni. Flow lines are enclosed in steam jackets to prevent congealing of oil

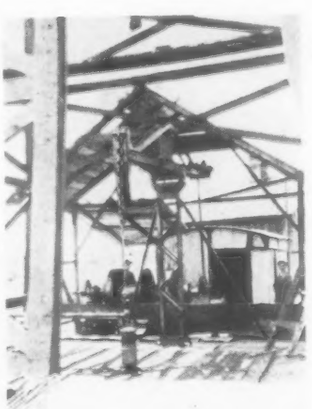


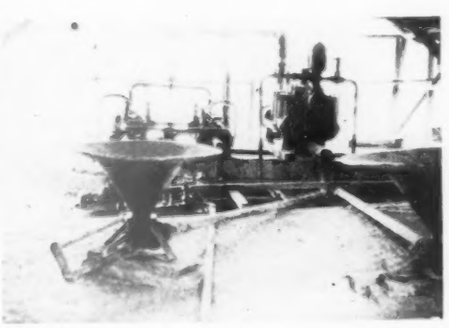
Hook-up of control equipment on high-pressure deep well on Astra-Romana property at Moreni, Roumania. Flow lines are enclosed in steam jackets to prevent congealing of paraffinous oil caused by reduction of pressure as the fluid stream passes flow beans. Pressures of 2500 pounds or more are encouraged



"Clean as a ball-room floor." This picture is typical of conditions of order and cleanliness which prevail on the properties of the Astra-Romana Company at Moreni



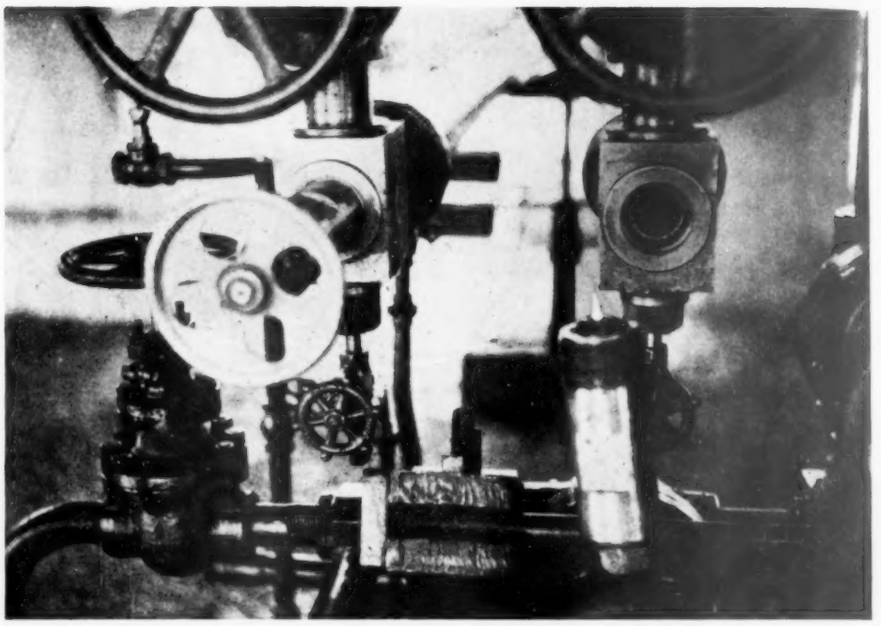




Lower: German-made "Wulfel" combination reduction gear and hoisting drum used in Roumanian production operations. Center: A typical example of pumping equipment now coming into use in Roumania. Home-made walking beam and German-made "Wulfel" combination hoist and reduction gear driven by electric motor. Lower left: Astra-Romana's central cement mixing station, Moreni field, Roumania

ties are at hand for doing a proper job, after which they are hauled out to the field where they are installed and tested again in accordance with mining regulations.

The hook-up affords dual control, both of the tubing and casing outlets. Mud lines extending from a well-organized central mixing plant which permit the introduction of mud without changing the hook-up or a part of every such assembly. Mud is always at hand, ready mixed in adequate quantities and supplied from sources which are separate and independent from the boiler and pumps serving the drilling rig; so that, if anything goes wrong and it becomes necessary to lubricate the well, it is only necessary to manipulate a few valves to introduce mud under high pressure.



Adjustable flow bean used on high-pressure wells by Astra-Romana Company in Moreni District of Roumania. These beans are made on the principle of the needle valve in a carburetor. Bean on right has been unscrewed to show details of construction

Flow beans used are of an adjustable type which operate on the same principle as the needle valve in an automotive carburetor. The "bean" is in reality a valve, manufactured in the company's own shops, which is capable of infinite adjustment simply by advancing and retarding a needle which fits into the aperture of the "bean." These needles are long and tapered; so that, in spite of the wearing away of the needle and the aperture by sand action, proper adjustment may be maintained by advancing the larger shank of the needle into the enlarged opening of the bean. Four of these beans are included in each hook-up; so that, as one becomes worn, the flow may be diverted to another while it is being replaced.

The flow lines are encased in pipes or jackets of larger diameter in which steam is circulated under pressure to prevent the freezing of oil and mud inside the line, which would otherwise be consequent upon the abrupt lowering of the well's natural pressure behind the choke. These steam mantles are provided with suitable drains to allow the drawing off of water resulting from condensation.

Not only are the flow lines heated externally; but steam jets are introduced into the flow lines and fluid streams themselves, as a further precautionary measure.

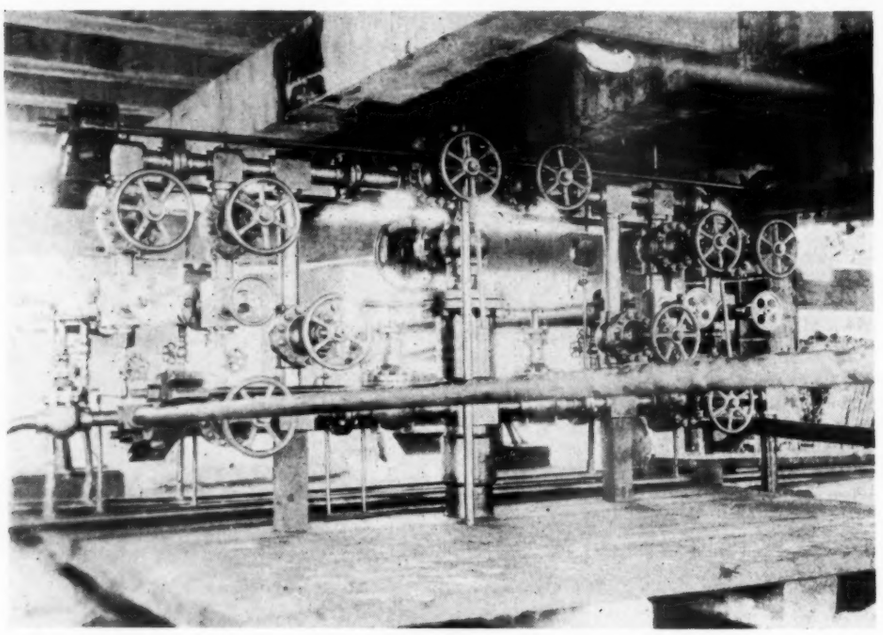
Gauge glasses on the gas traps are likewise fitted with steam coils to prevent their congestion by congealing paraffin, particularly in cold weather. An illustration shows a steam line of small diameter running through the gauge glass on a gas trap.

A central mud-mixing plant includes both hydraulic and mechanical (paddle wheel) mixing devices; and is equipped as a permanent installation for the mixture of both mud and barite, with mud lines radiating to every drilling and flowing well on the lease. These lines are carefully flushed out with clear water after each use, lest they become obstructed with sediment or clay settling out of the mud.

The idea of the central plant is also employed in the mixing of cement. Mixing hoppers and pumps are installed in a centrally-located shed, which also affords protection for the storage of dry cement prior to use. Pipe lines extend from this central plant to every drilling well on the property, through which cement slurry is pumped as needed in cementing casing.

Drilling, production, and gas-lift equipment used on the Astra's property at Moreni are of the very latest design. I was very interested in a combination reduction gear, hoist, and crank, manufactured in Germany in accordance with designs drawn by Astra engineers.

Electrical power is used both for drilling and production operations.

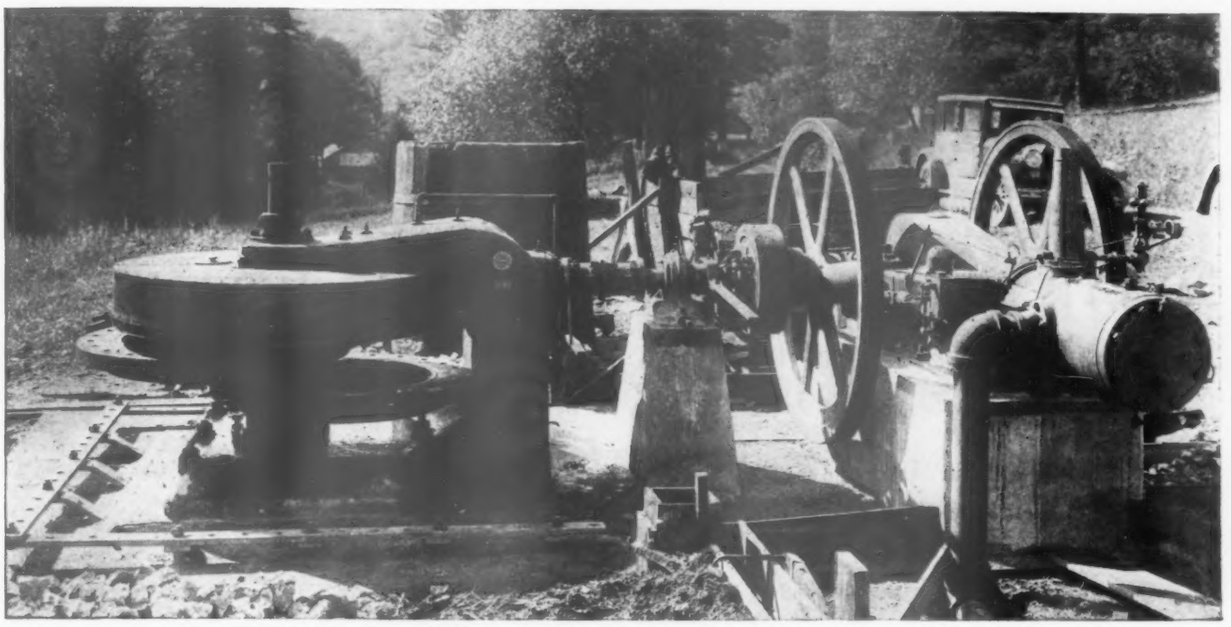


Christmas-tree hook-up on one of Astra-Romana's high-pressure deep-sand wells in the Moreni District of Roumania. Hughes valves shown in this photograph were bought under 3000-pound test specifications and then subjected to supplementary test of 3750 pounds in company's shops before being installed

Year after year, Bovaird & Seyfang geared powers perform their appointed tasks, consistently and well . . . a glowing tribute to the perfect coordination of B & S design and manufacture.

. . . in the B and S Geared Power

No small measure of credit for their unusually satisfactory service is due to the application of Hyatt Roller Bearings at certain strategic points in the equipment.



Geared power built by Bovaird & Seyfang Mfg. Co., Bradford, Pa. . . . totally Hyatt-protected. Pillow block and cut-off clutch are also Hyatt-equipped.

Hyatts promote a smoother, more effortless, flow of power . . . in addition to reducing maintenance costs by eliminating the need for bearing adjustments and repairs.

In pumping powers . . . as in hoists, draw works, rotaries, reduction gear units and other important equipment . . . Hyatts provide lasting satisfaction and permanent operating economy.

HYATT ROLLER BEARING COMPANY
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HYATT
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PRODUCT OF GENERAL MOTORS

SECTION OF CUBA'S $100,000,000 CENTRAL HIGHWAY

WORLD PETROLEUM IN REVIEW

Moscow, Russia.—Production of the Baku field continues to increase, the total for the first nine months of the current fiscal year being reported as 47,050,000 barrels, an increase of well over 6,000,000 barrels for the full year being indicated.

Panama, Canal Zone.—Statements issued by the minerals division of the Department of Commerce show that the consumption of fuel oils in the Central American countries has greatly increased during the past few years and practically all power is now being generated by the use of fuel oils.

Sydney, Australia.—A joint statement has been issued by the Board of Directors of the North Broken Hill, the Broken Hill South, the Zinc Corporation and the Electrolytic Zinc Companies announcing the purchase of an oil refining plant option over 11,000 acres of oil-shale lands at Newnes in New South Wales. A minimum output of the plant, which is to be located about 150 miles northwest of Sydney, is contemplated as over 625 barrels per day.

Rio de Janiero, Brazil.—Reports of the formation of a company comprising American and Brazilian capital, to be known as the Companhia Brasileira-Americana de Petroleo, state that the new company is to have a capitalization of $5,800,000. Proposed plans of the new organization are to develop petroleum deposits said to be located in the state of Alagoas. While mention has previously been made of oil shale deposits in this particular territory, very little information has been made public as to existence of crude oil.

Maracaibo, Venezuela.—A new producing level has been found with the completion of the Colon Oil Company's T-51, in the Las Cruces field, which came in for an initial production of 1728 barrels per day. This was an exploration well and was drilled with a view to determining the existence of a lower producing sand. Production in the field thus far had been obtained from a depth of around 2000 feet while the new completion went to a depth of 4252 feet.

Mexico City, Mexico.—Oil department of National Railways of Mexico recently brought in a well with a production of 1000 barrels daily from a depth of 2214 feet on a tract of government land near Camargo, State of Tamaulipas.

Sydney, Australia.—The new tariff schedule in the budget proposals of the Australian Commonwealth provides for a primage duty of 2½ per cent on all imports and an increase on the existing customs duties of gasoline. There is also suggested an increase on the excise duty on gasoline of 4½ cents per gallon.

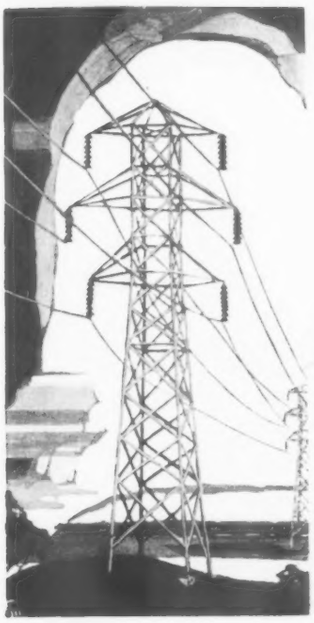
Moscow, Russia.—As a result of geological work carried on in the Okha region of Sakhalin Island in 1929, the oil resources of the district are now estimated at about 20,000,000 barrels. New oil deposits have been discovered in the Okha region and in seven other sections exploited by the Japanese concessionaries, especially along the western shore of the island. Oil in the Sakhalin is located at a depth of 500 to 650 feet.

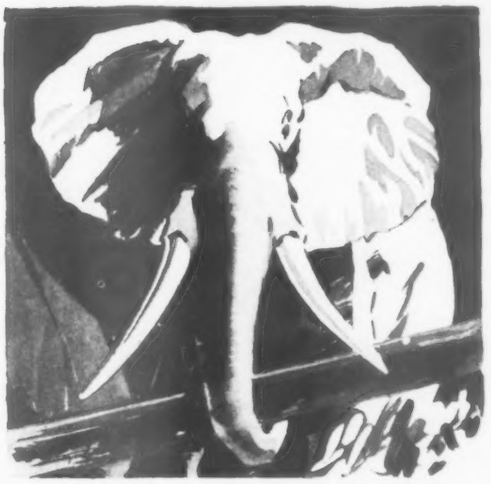
Moscow, Russia.—The program for oil production during the first eight months of the current fiscal year was carried out by all trusts of the United Oil Industry 99.6 per cent. The Azneft Oil Trust produced 97.1 of its program.

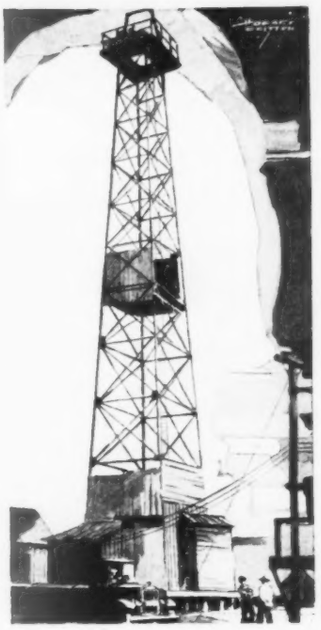
The production of gas was 2.9 per cent short of the program on June 1, the wells of the Azneft producing 91.5 per cent of their quota. The production of oil during the eight months period amounted to approximately 63,000,000 barrels. The program for drilling was carried out 95.6 per cent, while all drilling operations for prospecting fell short 15.2 per cent of the program. The refining program was carried out 100 per cent.

Bucharest, Roumania.—A booklet, "Petroleum in Roumania," has been recently edited by Mihail Pizanty which contains a general review of the economical, statistical and juridical situation of the petroleum industry in Roumania. Copies of these booklets can be obtained from Mihail Pizanty, editor

(Continued on page 68)







POWER

to unlock nature's treasure vaults

Nature has decreed that in proportion to the worth of its treasures, in that proportion must man pay for finding them. Oil, one of Nature's greatest treasures, taxes all the resources of man's mind to find it and to capture it. Electricity plays a prominent part in both. Its use is indispensable in the geophysical methods for locating salt domes. It provides the power for the producing, pipe line, and refining branches of the industry.

Nature's treasure vaults of oil were constructed through eons of time in geological yesterday. In America, Equatorial waters mingled with those of the Arctic flowing down to the sea, depositing layer upon layer of microscopic plants and animals. Ages of sedimentary deposits have buried deep these oil-bearing infusoria. It is fitting that electric power, the pinnacle of man's scientific endeavor, should be used to capture Nature's hidden potential power, oil.

Our engineers will be glad to supply you with complete information on the use of electric power in the producing, pipe line, or refining branches of the industry.

GULF STATES
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General Offices

BEAUMONT, TEXAS LAKE CHARLES, LA.

California Faces Another Year of Curtailment

Seeking New Markets

By BRAD MILLS
Staff Representative

LOS ANGELES.—With the period of lower consumption approaching a possibility of higher production in certain areas, California seems to face at least another year of curtailment if the industry is to be brought through the present depression without permanent scars. No alarming developments were observed during the past week to make the immediate future look less promising, but it has become increasingly evident that the general market structure is too sensitive to stand an unfavorable balance between production and consumption. The chairman of the operators general committee recently issued a warning that curtailment during the summer months has done much to hold the situation in hand but that an increased vigil will be necessary to maintain an even keel during thte coming months of lower consumption. California's ability to produce more oil than it can use is too well known to allow conservation measures to lapse; and with this thought in view, the present curtailment program will be carried out in some form.

At a meeting of the operators' general committee held this week, the question of changing allowables in various fields was discussed to reconcile the different opinions held concerning the interpretation of a resolution of May 15. Paul N. Boggs, chairman of the committee explained that the basic principle of the statewide curtailment plan was based on 100 per cent cooperation, a definite fixed allowable to be prorated to each field on the basis of the proportion such field bears to the total allowable (through a percentage cut). The potential was simply arrived at in each field by aggregating the company potentials, while the state potential was a combination of all field potentials. A pegged allowable was given to each field as of a given date.

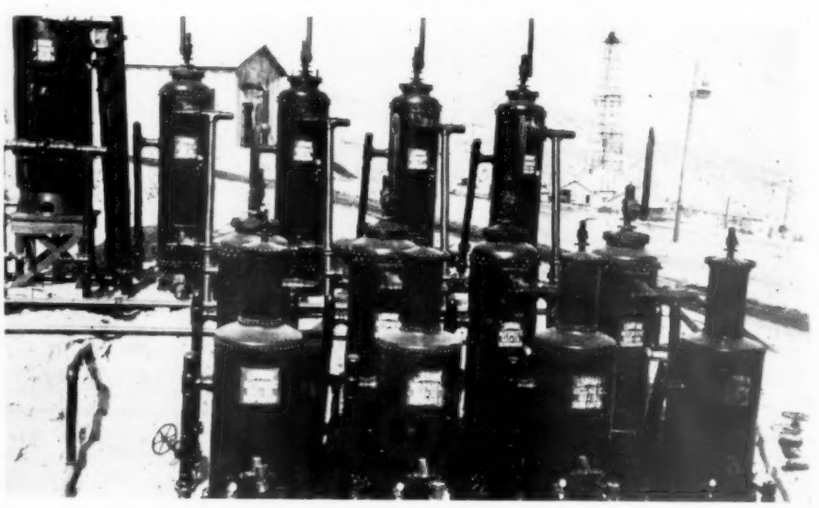
It was shown that allowables could be changed only through a drop in the potentials of other fields. The field or fields which could maintain or better their potentials, while other fields had allowed a shrinkage in their potentials, would be permitted to produce a greater part of the state's total allowable. It is obvious that increases in individual or field potentials would be useless through additional drilling unless there was a decline in the potential or potentials of other fields. A field now capable of producing 100,000 barrels and having an allowable of 56,000 barrels would profit by running its potential up to 135,000 barrels only in the same proportion as drops in potentials were recorded in other fields. This would be determined by a slightly greater allowable, in comparison with the greatly increased potential. This ruling will discourage intensive drilling in flush areas now abiding by the curtailment agreement.

Kettleman Dangerous Factor

Kettleman Hills is regarded as a dangerous factor, but a much larger production than the present flow seems unlikely before July 1, 1931. If curtailment continues to be successful in other fields, Kettleman Hills will not be allowed to offset the benefits derived from the present program. Plans for unit operation are being considered, but no definite program has been formulated.

An analysis of petroleum stocks being carried on the Pacific Coast reveals several interesting phases of past over-production, while the sharp reduction during June and continued inroad into certain stocks during July at last shows a definite trend in the right direction. From a study of the action of stocks during the past six months, it is readily apparent that a reduction in one column did not prevent the total from holding its own, or even climbing above that of the previous month, but the smaller balance on July 1 disclosed a basic change which was due to have come about several months ago.

Early in the year, light oil stocks jumped around on a change in refinery runs, but later in the period a better showing in the light oil division was reflected in increased gasoline and heavy oil stocks. This seems to have been caused by use of refinable stocks above requirements and the throwing over of gasoline and fuel (heavy) oil into the proper column. The net result in May was a decrease in



Gas trap arrangement at Continental Oil Company's Elliott 12-8, Kettleman Hills. The large trap at the upper left serves as the vacuum trap

light oil stocks and a corresponding jump in gasoline and heavy oil inventories.

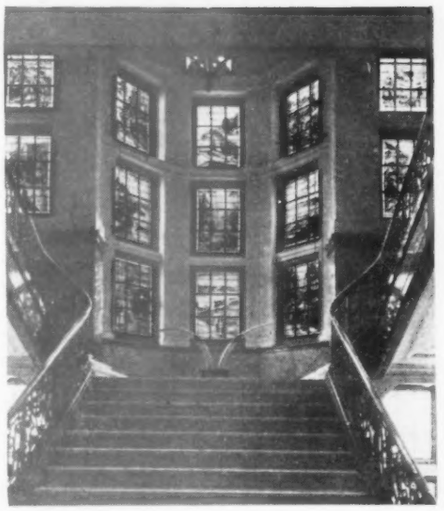
Latest figures released on July 1 show total stocks to have declined to 184,342,000 barrels of which 113,036,000 barrels falls in the heavy oil column, 41,864,000 barrels to refinable crude, 20° and lighter, 17,109,000 barrels to gasoline and 12,561,000 barrels to miscellaneous stocks. This is about 19,000,000 barrels higher than the total of a year ago. The demand for heavy stocks, aside from heavy fuel oil requirements, has not been good enough to bring about a reduction in heavy crude inventories.

Production Lower

Production is now running a full 200,000 barrels under the average of one year ago, the magnitude of the drop being appreciated only when the danger of such an enormous production as was recorded last July and August is considered. If the state total should rise to that of a year ago, the flood of oil would erase all traces of a market. Of course, no such increase is anticipated, but when the situation is viewed in the face of a sharp increase, the danger of a return to unrestricted practices are readily apparent. Average production during the summer months of 1929 was above 800,000 barrels, while the average of the same period of 1930 will not greatly exceed 600,000 barrels. That curtailment has been effective cannot be denied.

California is quietly seeking additional outlets for both its crude and refined products, this expansion centering in Japan, China and Australia. Flexible working agreements are being formed and California crude will supply Japanese refineries in increased quantities. Decline of demand for certain products has been offset by increases in others. Competition with South America and Gulf Coast fields has been mild, but this has caused a slight shift in the nature and extent of exports. Working agreements between Eastern and Western companies and subsidiaries connections have paved the way for constinuation of the flow of California products to the Atlantic seaboard, but the size of this movement is contingent upon several future developments. Shipments through the Panama Canal to the Atlantic seaboard are falling considerably below the estimates of eight months ago. Fuel oil, which moved in such satisfactory quantities during the spring months, is not constituting the percentage of the total movements it was expected to reach, while gasoline shipments have also been lower than anticipated. Pacific foreign shipments were nearly 40 per cent of the total during the first part of the year.

Little is being heard of enforcement of the gas conservation law, although it is partially in effect at Santa Fe Springs and will come up for test at Kettleman Hills. This statute was regarded by some as the salvation of the industry, but its application has been so weak that present reduction from the potential can not be attributed to the law at all. Opposition to the law has been able to tie the handes of the state and render the statute virtually useless. By pressing the present curtailment plan into action, urgent necessity for its enforcement was averted. The law seems to be weak in places, as evidenced by the success of the opposition at Long Beach and Santa Fe Springs. Gas waste at Kettleman Hills is enormous, but efforts to place the law on the trial of this waste have not been successful. The very high pressures in this field make its application very doubtful at best, but sentiment in the district seems to have pointed toward a hands off policy where danger from high pressure was evident or where application of the law would have resulted in a suspension of operations. Leading attorneys are working to revise the law and make it more effective, being aided by outside talent from states which are also seeking relief from overproduction.



Stained glass windows depicting the history of petroleum; in Shell building at The Hague

VISITORS to the general offices of the Royal Dutch Oil Company at The Hague never fail to be deeply impressed by the beauty and artistry of a group of stained glass windows which open into the main corridor. These marvelous examples of the glazier's art are devoted to the subject of petroleum and depict its history from ancient to modern times.

The window on the upper left represents a group of fire-worshippers paying devotion to their fire god at an ancient gas seepage in the Caucasus. The one below it shows the building of Noah's ark, which, as we learn from the Book of Genesis, was covered with pitch or petroleum residue both inside and outside.

The two corresponding windows on the right of the bay represent the importance of petroleum in the present day. The upper one shows an aeroplane flying over the snow-covered Alps, and the lower one depicts the first appearance of a motor car in a remote Chinese village.

The nine windows in the bay are devoted to the activities of the Royal Dutch Company in particular. The corner one represents the four corner-stones of the industry—production, refining, transportation and distribution. The four windows situated between these corners represent the company's four operating bases in the East Indies, namely, Pangkalan Brandan, Pladjoe, Balik Papan, and Tjepoe. The center one represents the source of the company's prosperity, a gusher in a tropical landscape.

General offices of the Dutch Shell Oil Company, The Hague

Not a record ▲▲▲just everyday performance▲▲▲

1647 feet* *with one set of discs!*

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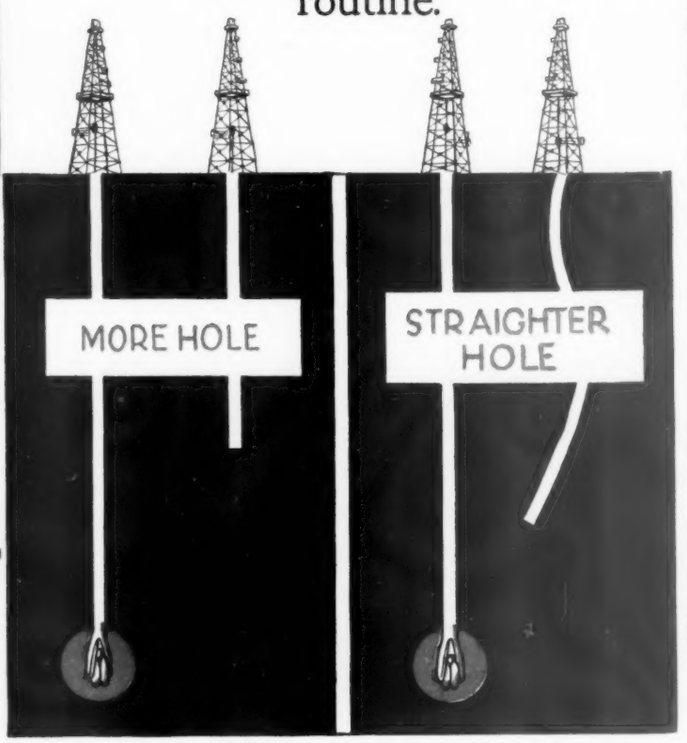
have established a reputation for digging more hole and straighter hole, so that performance like the above is accepted as part of the daily routine.



* This run was made at Venice, California, with a BJ 17″ Plain Shank and 13″ Discs, in sand and shale formation. The hole was *less than 1 degree off vertical.*

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Markets--Production--Crude Prices

H. J. STRUTH, *Staff Economist, Houston, Texas*

Crude Production Resumes Downward Trend

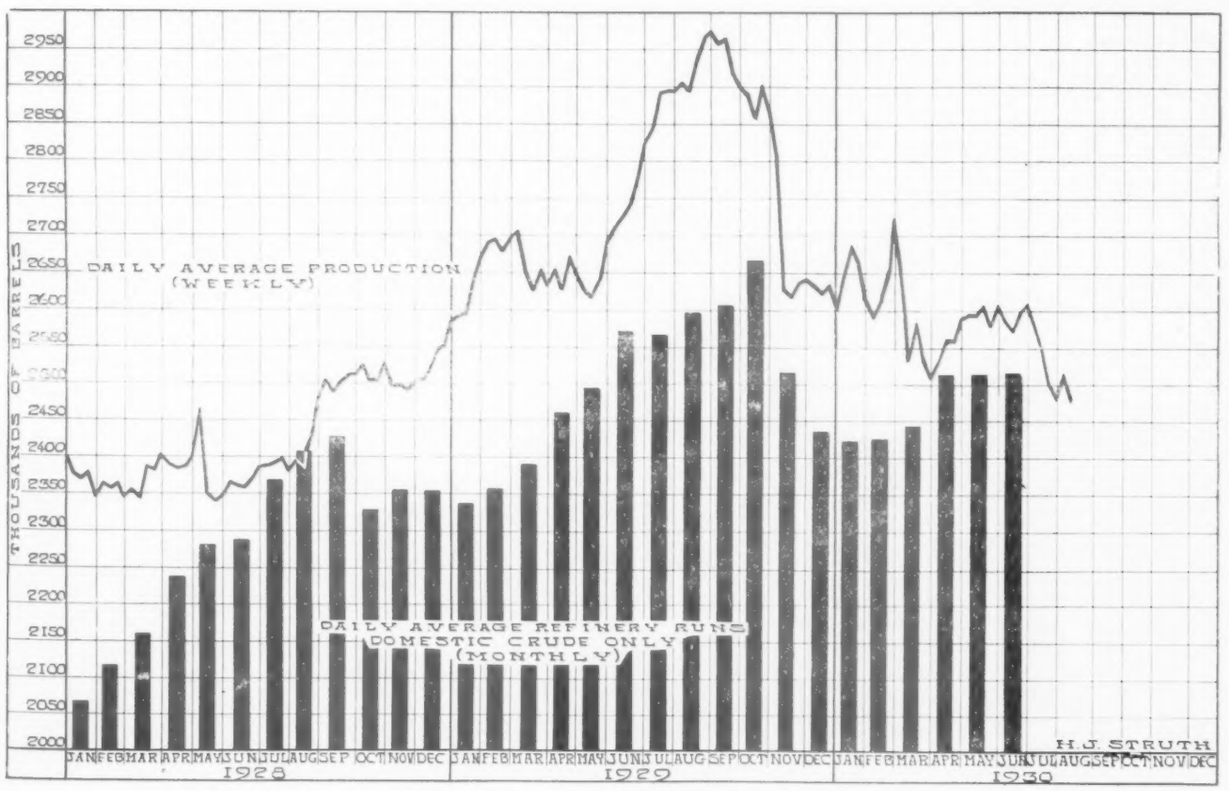
SUCCESSFUL reduction of output at Darst Creek last week, combined with substantial declines at Ector, Howard and Salt Flat fields, in Texas, resulted in a resumption of the downward trend of crude production in the United States. Despite the fact that increases were recorded in Oklahoma, Kansas, North Louisiana, Arkansas and California, daily average crude production of the United States for the week ending August 9 showed a decline of 35,100 barrels, bringing the total down to 2,480,200 barrels a day. Texas, outside of the Gulf Coast, registered a net decline last week of 49,250 barrels, 32,800 barrels of which was credited to the Darst Creek field. In addition, the Gulf Coast, Eastern States and Rocky Mountain States contributed a total decline of more than 5000 barrels daily.

Oklahoma reported a gain in production of 6000 barrels daily which was due principally to increased production at Earlsboro and Little River. Oklahoma City production was off 3550 barrels a day. The accompanying table shows that Oklahoma needs only a reduction of 10,650 barrels daily to bring the state total down to the limit prescribed by state proration officials. Kansas registered a gain of 1500 barrels in daily production last week, increasing the excess of the state to 12,396 barrels daily.

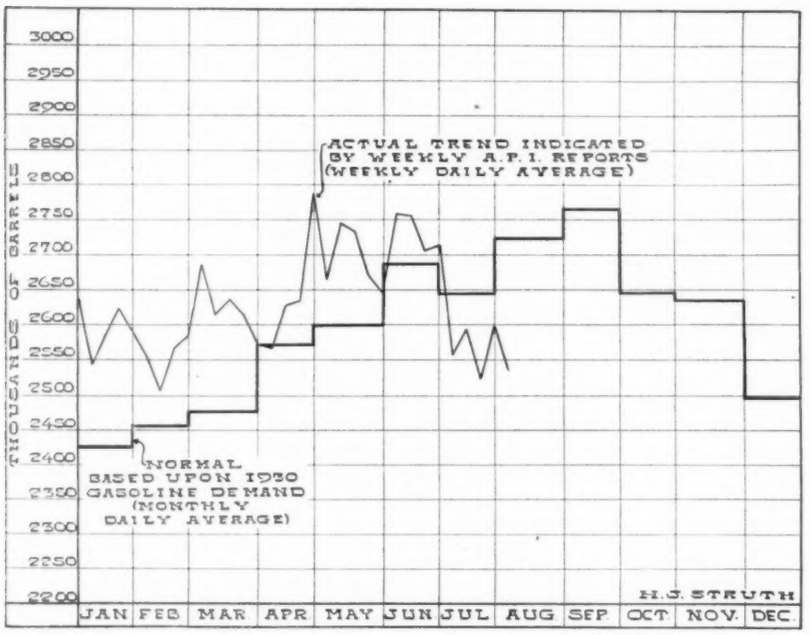
Advices from Magnolia Petroleum Company state that their stocks of crude were reduced to the extent of 337,680 barrels during July, a daily average reduction of 10,893 barrels. This is another encouraging sign on the horizon and shows the effect of production control.

The situation in Oklahoma and Kansas continues to develop new problems that are making it difficult to hold production down to the prescribed level. It is believed, however, that further efforts being made in pools of

DOMESTIC PRODUCTION AND REFINERY RUNS



RUNS OF CRUDE OIL TO STILLS



Southern Oklahoma, along with schedules now in effect in Northern Oklahoma and Kansas, will successfully prevent production from getting very far out of bounds. Operators throughout Oklahoma and Kansas are fully aware of the consequences that would quickly follow any uneconomic move and are therefore willing to abide by any reasonable plan of curtailment that will insure a stabilized market.

Texas 77,829 Barrels Over

Texas daily crude production is now rated in excess of proposed curtailment limit to the extent of 77,829 barrels. This is based upon the figure of approximately 742,621 barrels set by the joint committee of producers and pipe lines of Texas, which was submitted to the Railroad Commission recently. The gain at Darst Creek during the week ending August 2 placed the state production total at 872,950 barrels, or about 130,000 barrels in excess of the proposed limit. The decline at Darst Creek last week has, however brought the excess figure down to 77,829 barrels. On this basis, it should not be at all difficult to realize the figure proposed to the Railroad Commission. The all-important task now before the industry of Texas is to bring about a substantial reduction in excess storage of crude. Testimony of the need for such a reduction was given before the Railroad Commission at Austin a few days ago when Underwood Nazro, of Gulf Production Company stated that crude stocks in Texas have reached the collosal figure of 136,000,000 barrels. He also stated that crude stocks in the Gulf Coast now aggregate about 16,000,000 barrels.

Opposition to the proposed curtailment measures in Texas has not proven severe, although there are some operators who question the wisdom of state-wide proration. It is easy enough to say that the law of supply and demand will solve the over-production problem in Texas, but the fact remains that other producing states have demonstrated the feasibility of production control with its obvious advantages. If these gentlemen who oppose curtailment in Texas are willing to accept 10 cents a barrel for their oil, there are thousands of other producers who cannot afford such a sacrifice. If economic waste of both oil and money can be prevented through the adoption of an equitable plan of proration, it seems foolhardy to believe that unrestrained production will automatically restore the industry to normalcy. While it is true that a period of starvation oil prices will eventually eliminate over-production, it is also true that such a course to normalcy will be strewn with the remains of those who were unable to withstand the rigors of attendant depression.

Rule of thumb methods of by-gone days have no longer

CRUDE RUNS TO STILLS, GASOLINE AND GAS AND FUEL OIL STOCKS, WEEK ENDING AUGUST 2, 1930

(Figures in barrels of 42 gallons)

District—	Potential Daily Capacity	Potential Capacity Reporting Total	Per Cent	Crude Runs to Stills Total	Daily Average	Per Cent Operated	Gasoline Stocks	Gas & Fuel Oil Stocks
East Coast	608,700	608,700	100.0	3,417,000	488,100	80.2	7,242,000	10,084,000
Appalachian	128,100	117,600	91.8	567,000	81,000	68.9	1,494,000	1,010,000
Indiana, Illinois, Kentucky	382,500	381,000	99.6	1,998,000	285,400	74.9	7,069,000	4,387,000
Oklahoma, Kansas, Missouri	462,200	415,700	89.9	1,831,000	261,600	62.9	3,671,000	4,730,000
Texas	788,000	712,700	90.4	3,931,000	561,600	78.8	6,737,000	10,141,000
Louisiana-Arkansas	270,600	262,000	96.8	1,105,000	157,900	60.3	1,741,000	1,938,000
Rocky Mountain	148,900	139,300	93.6	365,000	52,100	37.4	2,400,000	1,204,000
California	897,400	891,400	99.3	3,983,000	569,000	63.8	13,746,000	106,147,000
Total Week August 2	3,686,400	3,528,400	95.7	17,197,000	2,456,700	69.6	44,100,000	139,642,000
Total Week July 26	3,686,400	3,528,400	95.7	17,630,000	2,518,600	71.4	44,751,000	139,269,000
The total U. S. figures for last year, shown immediately below, are not comparable with this week's totals because of difference in percentage capacity reporting.								
Total August 3, 1929	3,339,100	3,092,000	92.6	18,497,000	2,642,400	85.5	*35,594,000	*138,818,000
The Texas and Louisiana Gulf Coastal figures shown below are included above in the totals of their respective districts.								
Texas Gulf Coast	526,500	526,500	100.0	2,926,000	418,000	79.4	5,484,000	7,049,000
Louisiana Gulf Coast	147,500	147,500	100.0	787,000	112,400	76.2	1,382,000	1,098,000

*Final Revised 1929.

a place in the oil industry. There are today oil men of a new generation who are better equipped to cope with economic problems than ever before. Everywhere, men in all lines of industry and finance are vitally concerned with the problem of eliminating unnecessary cycles of prosperity and depression. The oil industry has learned the folly of forging ahead blindly—producing oil regardless of market demand; and it is exerting every effort to show the world that it is possible to stabilize the supply of even such an uncertain product as petroleum. The unselfishness with which a majority of Texas operators have agreed to limit their production shows the new spirit of cooperation that has pervaded the ranks of the industry. Those who are not willing to join forces with this constructive movement will soon find their ranks reduced to minority.

A gain last week of 9400 barrels in California's daily crude output brought the excess figure for the state up to 22,100 barrels. All fields of the state remained at a more or less constant production level with the exception of Elwood. This field reported a gain in production of 7400 barrels daily. While this gain is considered but a temporary upturn, it is obvious that similar turns in other fields of the state such as Santa Fe Springs, Long Beach and Ventura would quickly disrupt proration schedules in California. Particularly in view of developments at Playa del Rey, there is urgent need for caution on the part of umpires to prevent production from getting out of bounds. There is still plenty of room for improvement in the supply situation in California and it will take constant vigilance over field totals to prevent another siege of demoralized markets.

Assurance that curtailment in California will continue for perhaps another year offsets the possibility of a larger production in the fields not rigidly adhering to the conservation program. A lower allowable during the winter months probably will be the objective of the General Committee if stocks do not continue to drop and consumption declines. The scheme to hold down the allowable of fields which build up their potentials through additional drilling is expected to discourage development in the troublesome districts. Little has been accomplished at Playa del Rey and new completions have increased the potential considerably. This field is in a position to cause more trouble through lack of cooperation than through a flood of crude, since other fields will not want to allow an open flow while being restricted themselves.

Gasoline prices are unchanged, while fuel oil is holding surprisingly firm on a steady demand. Reduction in refinery runs has aided this commodity. Refinable crude is obtainable on spot movements at the posted prices, but future deliveries are difficult to obtain over a long period without small premiums.

HOW LAST WEEK'S DAILY AVERAGE PRODUCTION COMPARES WITH NECESSARY AND NORMAL QUOTA LIMIT

	Necessary Daily Average 3rd Quarter 1930	Quota Limit Prescribed to Correct Previous Excesses	Actual Daily Average Week Ending August 9 1930	Excess
Arkansas	62,431	62,431	55,500	—6,931
California	664,149	594,000	616,100	22,100
Kansas	120,222	105,554	117,950	12,396
Louisiana	60,116	58,749	74,750	16,001
Oklahoma	669,115	550,000*	560,650	10,650
Texas	839,361	742,621(a)	819,850	77,829
Balance of U. S.	230,000	230,000	235,400	5,400
Total	2,645,394	2,343,607	2,480,200	136,593

*Revise to meet lower purchasing schedules.
(a)—Proposed limit set by operators' committee.

IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

(Barrels of 42 gallons)

	Total Month July	Total Month June	Week Ended Aug. 2		Week Ended July 26
ATLANTIC COAST PORTS—					
Baltimore	1,305,000	1,546,000	402,000	"A"	318,000
Boston	296,000	470,000	.....	"A"	153,000
New York	4,804,000	3,632,000	1,339,000		904,000
Philadelphia	1,176,000	1,351,000	265,000		255,000
Others	1,117,000	751,000	302,000		208,000
Total	8,698,000	7,750,000	2,308,000		1,838,000
Daily Average	280,580	258,333	329,714		262,571
AT GULF COAST PORTS—					
Galveston District	176,000	133,000	.....		66,000
New Orleans and Baton Rouge	284,000	521,000	15,000		84,000
Port Arthur and Sabine District	65,000	65,000	.....		65,000
Tampa	74,000	40,000	.....		.....
Total	599,000	759,000	15,000		215,000
Daily Average	19,323	25,300	2,143		30,714
AT ALL UNITED STATES PORTS—					
Total	9,297,000	8,509,000	2,323,000		2,053,000
Daily Average	299,903	283,633	331,857		293,285
Distribution of Total Imports is as follows:					
Crude	5,838,000	5,435,000	1,428,000		1,318,000
Gasoline	1,459,000	1,603,000	340,000	"A"	391,000
Gas Oil	97,000	121,000	.....		17,000
Fuel Oil	1,903,000	1,350,000	555,000		327,000
Total	9,297,000	8,509,000	2,323,000		2,053,000

"A"—Revised.

CALIFORNIA OIL RECEIPTS AT ATLANTIC AND GULF COAST PORTS

(Barrels of 42 gallons)

	Total Month July		Total Month June	Week Ended Aug. 2	Week Ended July 26
AT ATLANTIC COAST PORTS—					
Baltimore	538,000		249,000	.....	154,000
Boston	241,000		.....	48,000	97,000
New York	1,346,000		1,018,000	339,000	117,000
Philadelphia	739,000		623,000	232,000	75,000
Others	200,000	"A"	117,000	167,000	.....
Total	3,064,000		2,007,000	786,000	443,000
Daily Average	98,839		66,900	112,286	63,286
AT GULF COAST PORTS—					
Total	144,000		72,000	.....	.....
Daily Average	4,645		2,400	.....	.....
AT ATLANTIC & GULF COAST PORTS—					
Total	3,208,000		2,079,000	786,000	443,000
Daily Average	103,484		69,300	112,286	63,286
Distribution of Total California Oil Receipts is as follows:					
Gasoline	3,075,000		1,688,000	686,000	443,000
Kerosene	33,000	"A"	47,000	.....	.....
Gas Oil	.....		232,000	.....	.....
Fuel Oil	92,000		75,000	92,000	.....
Lubricants	8,000		37,000	8,000	.....
Total	3,208,000		2,079,000	786,000	443,000

"A"—Revised.

Weekly Comparisons of Permits Granted for New Wells

States—	Week Ending Aug. 9	Previous week	This week 1929	Total this month	This month 1929	Total this year	Total this date last year	1929 year total
Arkansas	..	3	2	3	9	63	95	159
California	17	18	10	35	32	506	813	1,231
Louisiana	22	19	20	41	35	669	525	903
Kansas	13	17	27	30	60	657	682	1,079
Oklahoma	51	30	100	81	175	2,061	2,109	3,578
Texas	89	196	188	292	392	5,011	5,634	8,697
Total	199	283	347	482	703	8,967	9,858	15,647

Production should show no gain during the next few weeks unless Playa del Rey assumes a more menacing aspect.

Daily Excess 136,593 Barrels

The status of United States crude production now shows that there is a daily excess output of about 136,593 barrels. If Texas operators succeed in placing proposed proration plans into effect this month and efforts to reduce output in other states are successful, there is every reason to believe that production will be brought down to a total of at most 2,375,000 barrels daily. When the total reaches that point, the industry will be in a fair way to realize a degree of stabilization such as has never before been witnessed. What this will mean to the producer in the way of improved market values depends entirely upon the ability of the industry to continue to hold production within the limits prescribed by market demands.

Following are the more important changes in production reported by the American Petroleum Institute for the week ending August 9:

		Barrels
Gray County	Increase	1,700
Wilbarger County	Decrease	1,050
Ector County	Decrease	7,600
Howard County	Decrease	3,950
Van	Decrease	1,300
Darst Creek	Decrease	32,800
Salt Flat	Decrease	2,900
Carr City	Decrease	1,300
Earlsboro	Decrease	2,750
East Earlsboro	Increase	5,050
East Little River	Increase	4,850
Konawa	Increase	7,350
Little River	Decrease	2,900
Mission	Decrease	1,800
Oklahoma City	Decrease	3,550
St. Louis	Decrease	1,250
Sasakwa	Increase	1,750
South Earlsboro	Increase	2,750
West Asher	Decrease	3,000
Elwood	Increase	7,400
Voshell	Increase	1,750
Bayou Boullion	Increase	1,350
East Hackberry	Increase	2,400

Runs of crude to stills at refineries during the past week aggregated 17,063,000 barrels, or a daily average of 2,437,000 barrels. This is a further decline from last week's daily average of 2,457,000 barrels of 20,000 barrels, according to figures obtained by the American Petroleum Institute. It is becoming more and more apparent, however, that increased recovery of gasoline from crude is resulting in the production of comparatively little less gasoline than was produced during the period when runs were considerably larger.

Summarized Review of Field Results

State—	Completions This week	Completions Last week	Oil Wells This week	Oil Wells Last week	Gas Wells This week	Gas Wells Last week	Failures This week	Failures Last week	Initial Prod. This week	Initial Prod. Last week
Missouri	..	1	..	..	..	..	..	1	..	..
Arkansas	4	..	1	..	..	..	3	..	30	..
California	16	10	13	10	..	..	3	..	9,400	7,030
Illinois	5	5	..	3	..	..	5	2	..	65
Indiana	5	2	2	..	1	1	2	1	65	..
Kansas	13	36	9	7	..	15	4	14	3,355	2,305
Kentucky	22	29	14	24	2	2	6	3	795	655
Louisiana	21	25	7	9	6	6	8	10	4,206	6,137
Michigan	2	3	2	3	..	..	..	..	400	950
Mississippi	2	3	..	..	2	2	..	1	..	..
New Mexico	3	1	1	1	..	..	2	..	11,080	600
Ohio	30	27	11	7	10	13	9	7	449	439
Oklahoma	74	65	40	38	7	8	27	19	163,301	274,167
Pennsylvania	44	14	13	5	17	4	14	5	95	39
Texas	140	123	64	73	12	10	64	40	43,158	162,164
Total	381	344	177	180	57	61	147	103	236,334	454,551
Increase this week	37	..	..	..	..	..	44	..	..	..
Decrease this week	..	..	3	..	4	..	..	..	218,217	..

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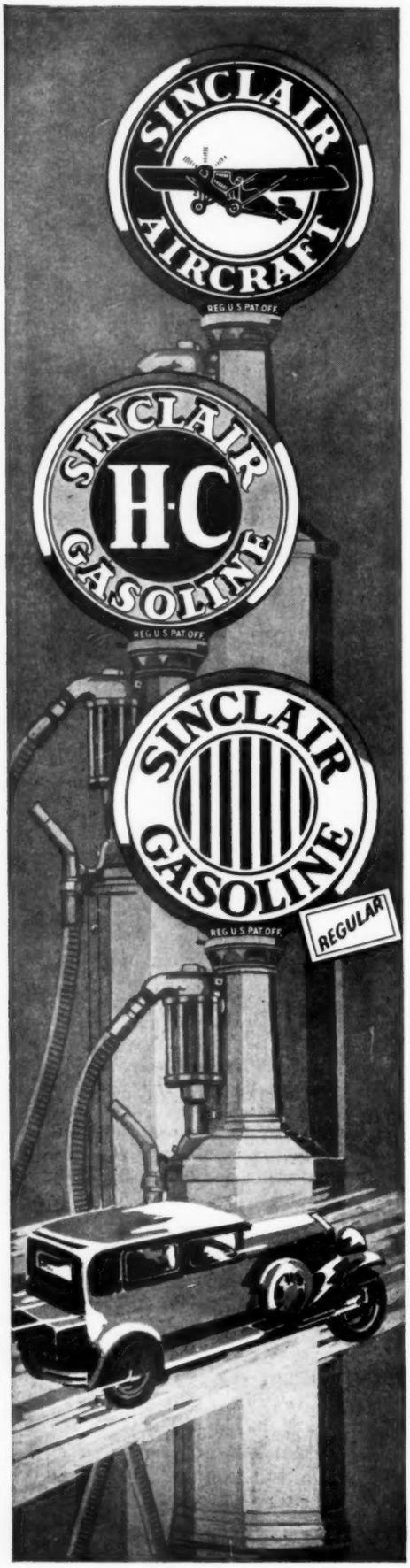

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Crude Oil Price Quotations

Revised to August 11, 1930

EASTERN STATES

(Effective August 1, 1930)

*Bradford Grade	2.15
Penn Grade Oil in National Transit Lines (Pennsylvania)	2.10
Penn Grade Oil in Southwest Pennsylvania Lines (Penna.)	2.05
Penn Grade Oil in Eureka Pipe Line Lines (West Virginia)	1.95
Penna Grade Oil in Buckeye Pipe Line Lines (Ohio)	1.80
Cabell Grade Oil in Eureka Pipe Line Lines (West Virginia)	1.55
Corning 35-cent Grade Oil in Buckeye Pipe Line Co.'s Lines	1.30
Corning 25-cent Grade Oil in Buckeye Pipe Line Co.'s Lines	1.50
Somerset Oil in Cumberland Pipe Line Lines (Kentucky)	1.37
Ragland Grade Oil in Cumberland Pipe Line Lines (Kentucky) (Effective Jan. 29, 1929)	.60
Wayne Dist. Oil in Cumberland Pipe Lines	1.24

*Posted by Tidewater Pipe Company.

CENTRAL STATES

(Effective June 26, 1930)

Posted by Ohio Oil Company

Illinois	$1.65
Indiana	1.32
Lima	1.55
Plymouth	1.23
Princeton	1.65
Wooster	1.65

WESTERN KENTUCKY

All grades	1.55

OKLAHOMA-KANSAS

(Effective April 10, 1930)

Below 25 gravity	$ .70
25 to 25.9 gravity	.70
26 to 26.9 gravity	.76
27 to 27.9 gravity	.82
28 to 28.9 gravity	.88
29 to 29.9 gravity	.95
30 to 30.9 gravity	1.02
31 to 31.9 gravity	1.10
32 to 32.9 gravity	1.15
33 to 33.9 gravity	1.185
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.255
36 to 36.9 gravity	1.29
37 to 37.9 gravity	1.325
38 to 38.9 gravity	1.36
39 to 39.9 gravity	1.395
40 to 40.9 gravity	1.43
41 to 41.9 gravity	1.465
42 to 42.9 gravity	1.50
43 to 43.9 gravity	1.535
44 and above	1.57

PANHANDLE

(Effective April 10, 1930)

GRAY COUNTY

Below 29 gravity	.755
29 to 29.9 gravity	.805
30 to 30.9 gravity	.855
31 to 31.9 gravity	.905
32 to 32.9 gravity	.955
33 to 33.9 gravity	1.005
34 to 34.9 gravity	1.055
35 to 35.9 gravity	1.09
36 to 36.9 gravity	1.125
37 to 37.9 gravity	1.16
38 to 38.9 gravity	1.195
39 to 39.9 gravity	1.23
40 to 40.9 gravity	1.265
41 to 41.9 gravity	1.30
42 to 42.9 gravity	1.335
43 to 43.9 gravity	1.37
44 and above	1.405

CARSON-HUTCHINSON COUNTIES

Below 32 gravity	$ .775
32 to 32.9 gravity	.825
33 to 33.9 gravity	.875
34 to 34.9 gravity	.925
35 to 35.9 gravity	.965
36 to 36.9 gravity	.995
37 to 37.9 gravity	1.03
38 to 38.9 gravity	1.065
39 to 39.9 gravity	1.10
40 to 40.9 gravity	1.135
41 to 41.9 gravity	1.17
42 to 42.9 gravity	1.205
43 to 43.9 gravity	1.24
44 and above	1.275

WHEELER COUNTY

Below 30 gravity	$ .755
30 to 30.9 gravity	.805
31 to 31.9 gravity	.855
32 to 32.9 gravity	.905
33 to 33.9 gravity	.955
34 to 34.9 gravity	1.005
35 to 35.9 gravity	1.04
36 to 36.9 gravity	1.075
37 to 37.9 gravity	1.11
38 to 38.9 gravity	1.145
39 to 39.9 gravity	1.18
40 to 40.9 gravity	1.215
41 to 41.9 gravity	1.25
42 to 42.9 gravity	1.285
43 to 43.9 gravity	1.32
44 and above	1.355

WEST TEXAS

(Effective April 10, 1930)

Crane-Upton, Crockett, Ector, Howard, Pecos and Winkler Counties and Lea County, N. Mex.

Below 25 gravity	$ .65
25 to 25.9 gravity	.68
26 to 26.9 gravity	.71
27 to 27.9 gravity	.74
28 to 28.9 gravity	.77
29 to 29.9 gravity	.80
30 to 30.9 gravity	.83
31 to 31.9 gravity	.86
32 to 32.9 gravity	.89

CALIFORNIA CRUDE OIL PRICES AT THE WELL

(EFFECTIVE JUNE 14, 1930)

Following are the current prices offered by Standard Oil Company for crude oil at the wells; (Price per barrel of 42 gallons in fields indicated)

Gravity	Ventura*	Signal Hills	Alamitos Heights Seal Beach	Huntington Beach	Inglewood	Olinda-Brea Canon	Athens-Rosecrans Dominguez	Elwood Terrace	Torrance	Richfield	Whittier La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall McKittrick Kern River	Midway-Sunset Elk Hills	Buena Vista Hills	Lost Hills	Coalinga	Wheeler Ridge
14-14.9	$ .70	$ .70	$ .70	$ .70	$ .70	$ .70	$ ..	$ ..	$ .70	$ .70	$ .70	$ .70	$ .70	..	$ .55	$ .55	$ .55	$ .55	$ .55	$ .55
15-15.9	.70	.70	.70	.70	.70	.70	..	..	.70	.70	.70	.70	.70	..	.55	.55	.55	.55	.55	.55
16-16.9	.70	.70	.70	.70	.70	.70	..	..	.70	.70	.70	.70	.70	..	.55	.55	.55	.55	.55	.55
17-17.9	.70	.70	.70	.70	.70	.70	..	..	.70	.70	.70	.70	.70	..	.55	.55	.55	.55	.55	.55
18-18.9	.75	.76	.76	.76	.76	.76	..	..	.76	.76	.76	.71	.76	..	.55	.62	.62	.62	.62	.62
19-19.9	.80	.82	.82	.82	.82	.82	..	..	.82	.82	.82	.77	.82	..	.55	.70	.70	.70	.70	.70
20-20.9	.85	.88	.88	.88	.88	.88	..	..	.88	.88	.87	.83	.87	..	..	.78	.78	.78	.78	.78
21-21.9	.90	.94	.94	.94	.94	.94	..	..	.94	.94	.93	.90	.93	.92	..	.86	.86	.86	.86	.86
22-22.9	.97	1.00	1.00	1.00	1.00	1.00	..	..	1.00	1.00	.98	.97	.98	.95	..	.94	.94	.94	.94	.94
23-23.9	1.05	1.07	1.07	1.07	1.07	1.07	..	..	1.07	1.07	..	1.05	1.04	1.01	..	1.02	1.02	1.02	1.02	1.02
24-24.9	1.08	1.14	1.14	1.14	1.14	1.14	1.14	..	1.14	1.14	..	1.11	1.10	1.07	..	1.09	1.09	1.09	1.07	1.07
25-25.9	1.13	1.21	1.21	1.21	1.21	1.21	1.19	..	1.21	1.21	..	1.17	1.16	1.13	..	1.16	1.16	1.16	1.12	1.12
26-26.9	1.18	1.28	1.28	1.28	1.28	1.28	1.24	..	1.28	1.28	..	1.23	1.23	1.19	..	1.23	1.23	1.23	1.17	1.17
27-27.9	1.23	1.35	1.35	1.35	1.35	1.35	1.29	..	1.35	1.35	..	1.29	1.30	1.25	..	1.30	1.30	1.30	1.23	1.22
28-28.9	1.28	1.42	1.42	1.42	1.42	1.42	1.34	..	1.42	1.42	..	1.35	1.37	1.31	..	1.35	1.35	1.35	1.27	..
29-29.9	1.33	1.46	1.46	1.46	..	1.46	1.39	..	..	1.46	..	1.38	1.41	1.37	..	1.41	1.41	1.41	1.31	..
30-30.9	1.39	1.50	1.50	1.50	..	1.50	1.45	..	..	1.50	..	1.41	1.45	1.43	..	1.47	1.47	1.47	1.35	..
31-31.9	1.45	1.55	1.55	1.55	..	1.55	1.51	..	..	..	..	..	..	1.49	..	1.53	1.53	1.53	1.39	..
32-32.9	1.51	1.60	1.60	1.60	..	..	1.57	..	..	..	..	..	..	1.55	..	1.59	1.59	1.59	1.43	..
33-33.9	1.58	..	..	..	..	..	1.64	..	..	..	..	..	..	1.60	..	1.65	1.65	1.65	1.47	..
34-34.9	..	..	..	..	..	..	1.71	1.32	..	..	..	..	..	1.65	..	..	..	1.71	1.51	..
35-35.9	..	..	..	..	..	..	1.78	1.39	..	..	..	..	..	1.70	..	..	..	1.77	1.55	..
36-36.9	..	..	..	..	..	..	1.84	1.46	..	..	..	..	..	1.75	..	..	..	..	..	..
37-37.9	..	..	..	..	..	..	1.90	1.53	..	..	..	..	..	1.80	..	..	..	..	..	..
38-38.9	..	..	..	..	..	..	1.96	1.60	..	..	..	..	..	1.85	..	..	..	..	..	..
39-39.9	..	..	..	..	..	..	2.02	1.66	..	..	..	..	..	1.90	..	..	..	..	..	..
40-40.9	..	..	..	..	..	..	2.08	1.72	..											
41-41.9	..	..	..	..	..	..	2.14	1.78	..											
42-42.9	..	..	..	..	..	..	2.20	1.84	..											

KETTLEMAN HILLS—55 degrees Gravity and above 1.65 per barrel. *Union Oil Company.
General Petroleum Posts following prices 11-39.9 Gr. 50c, 14-22.9 55c at Kern Front, Fruitvale, Mt. Poso Creek and Rd. Mountain districts.

CRUDE OIL PRICE QUOTATIONS (*Continued from Page 43*)

33 to 33.9 gravity ..... .92
34 to 34.9 gravity ..... .95
35 to 35.9 gravity ..... .98
36 and above 1.01

Magnolia Petroleum Company posts in Crane, Upton and Winkler Counties. Southern Crude Oil Purchasing Company posts only in Crane, Upton and Winkler Counties.

HOWARD AND GLASSCOCK COUNTY CRUDE

(Effective April 10, 1930)

Below 25 gravity .....$ .65
25 to 25.9 gravity ..... .68
26 to 26.9 gravity ..... .71
27 to 27.9 gravity ..... .74
28 to 28.9 gravity ..... .76
29 to 29.9 gravity ..... .78
30 to 30.9 gravity ..... .80
31 to 31.9 gravity ..... .82
32 to 32.9 gravity ..... .84
33 to 33.9 gravity ..... .86
34 to 34.9 gravity ..... .88
35 to 35.9 gravity ..... .90
36 and above ..... .92

MARKHAM

The Texas Company

(Effective April 11, 1930)

All grades .....$ .85

CORSICANA HEAVY

All grades .....$ .80

SALT FLAT AND DARST CREEK

All grades $1.15

SOUTH TEXAS

Mirando .....$ .85
Luling ..... .85

NORTH AND CENTRAL TEXAS

(Effective April 10, 1930)

Ranger, North Texas, Mexia, Powell, Richland, Wortham, Currie, Moran, Nocona, Lytton Springs, and Van*

Below 25 gravity .....$ .72
25 to 25.9 gravity ..... .77
26 to 26.9 gravity ..... .82
27 to 27.9 gravity ..... .87
28 to 28.9 gravity ..... .92
29 to 29.9 gravity ..... .97
30 to 30.9 gravity 1.02
31 to 31.9 gravity 1.07
32 to 32.9 gravity 1.12
33 to 33.9 gravity 1.17
34 to 34.9 gravity 1.22
35 to 35.9 gravity 1.255
36 to 36.9 gravity 1.29
37 to 37.9 gravity 1.325
38 to 38.9 gravity 1.36
39 to 39.9 gravity 1.395
40 to 40.9 gravity 1.43
41 to 41.9 gravity 1.465
42 to 42.9 gravity 1.50
43 to 43.9 gravity 1.535
44 and above 1.57

*Pure Oil Company, July 9, 1930.

GULF COAST

(Effective April 10, 1930)

Grade "A" all companies $1.15

Grade "B"

Below 25 gravity $1.00
25 to 25.9 gravity 1.03
26 to 26.9 gravity 1.06
27 to 27.9 gravity 1.09
28 to 28.9 gravity 1.12
29 to 29.9 gravity 1.15
30 to 30.9 gravity 1.18
31 to 31.9 gravity 1.21
32 to 32.9 gravity 1.24
33 to 33.9 gravity 1.27
34 to 34.9 gravity 1.30
35 to 35.9 gravity 1.33
36 to 36.9 gravity 1.36
37 to 37.9 gravity 1.39

CLASSIFICATIONS OF GULF COAST CRUDE

The Texas Company: GRADE A—Beaume gravity not over 26.0 degrees at 60 degrees Fahrenheit; sulphur not over 0.5 per cent; in distilling 500 cc. of the crude that part of the distillate cut between 65 per cent off and 85 per cent off shall have a pour test of zero or lower. GRADE B—All Gulf Coast heavy crudes which do not meet tests for Grade "A" or for Gulf Coast light.

Humble Oil & Refining Company: GRADE A—All crude conforming to the following tests: viscosity not less than 100 seconds Saybolt at 100 degrees Fahrenheit; sulphur not over .4 per cent; Beaume gravity not over 25 at 60 degrees Fahrenheit. Cold tests of distillates having a viscosity of 1000 seconds at 100 degrees Fahrenheit shall not be over 5 degrees Fahrenheit. GRADE B—Embraces all Coastal crude which does not meet the tests for "A" grade crude.

Gulf Pipe Line Company: GRADE A—Beaume gravity not over 24 at 60 degrees Fahrenheit; viscosity not less than 100 seconds universal Saybolt at 100 degrees Fahrenheit; and sulphur not over 0.4 per cent. The yield of 250 viscosity reduced distillate at 100 degrees Fahrenheit not less than 30 per cent, and this 30 per cent not heavier than 20 Beaume, and its pour test not above zero Fahrenheit. The reduced distillate to be secured by reducing the crude with fire and steam until the bottoms have a flash of not less than 540 degrees Fahrenheit, and not more than 560 degrees Fahrenheit open cup, and the entire distillate obtained in this way reduced to a distillate of 250 viscosity. The 10 per cent cut in the original distillate having an average viscosity of 500 seconds at 100 degrees Fahrenheit to have a pour test not higher than 5 degrees Fahrenheit. GRADE B—Embraces crude which does not meet test for "A" grade.

Sun Pipe Line Company: GRADE A—Viscosity not less than 100 seconds at 100 degrees Fahrenheit Saybolt. Sulphur not over .4 per cent. Beaume gravity not over 25 at 60 degrees Fahrenheit. Cold Test: of distillates having viscosity of 1000 seconds at 100 degrees Fahrenheit shall not be over 5 degrees Fahrenheit A. S. T. M. Method. GRADE B—All Coastal crudes which do not meet specifications for Grade A crude.

38 to 38.9 gravity 1.42
39 to 39.9 gravity 1.44
40 to 40.9 gravity 1.46
41 to 41.9 gravity 1.48
42 to 42.9 gravity 1.50
43 to 43.9 gravity 1.52
44 and above 1.54

REFUGIO

(Effective April 10, 1930)

Below 25 gravity (heavy) ..... .85

REFUGIO (Light)

Same as Gulf Coast 25 gravity and above.

PETTUS

(Effective April 10, 1930)

All grades $1.40

BRENHAM

(Effective March 1, 1930)

All grades ..... .95

STATE CRUDE PRODUCTION TAXES

Oklahoma—Three per cent of gross value, less royalty interest.

Texas—Two per cent of gross value.

Louisiana—From four to 11 cents a barrel, depending upon gravity.

Arkansas—2.6 per cent of gross market value.

Montana—Two per cent of gross value at well.

Wyoming and New Mexico—Production tax based upon state and county assessments.

California—.66443 mills per barrel of oil produced and 17.39 cents per acre on proved oil lands.

WYOMING-MONTANA

(Effective April 11, 1930)

Wyoming

Byron $1.33
Ferris 1.60
Elk Basin 1.55
Grass Creek 1.55
Rock Creek 1.35
Lost Soldier 1.05
Lance Creek 1.63
Mule Creek 1.20
Notches ..... .65
Big Muddy 1.38
Osage 1.65
Hamilton Dome ..... .85
Pilot Butte 1.75
Torchlight-Greybull 1.65
Lander ..... .80
Rex Lake 1.10
South Casper Creek-Poison Spider 1.00

SALT CREEK

Midwest Refining Company

29 to 29.9 gravity .....$ .90
30 to 30.9 gravity ..... .96
31 to 31.9 gravity 1.02
32 to 32.9 gravity 1.08
33 to 33.9 gravity 1.11
34 to 34.9 gravity 1.14
35 to 35.9 gravity 1.17
36 to 36.9 gravity 1.20
37 and above 1.23

MONTANA

(Effective Feb. 15, 1930)

Sunburst $1.65
Cat Creek 1.48
Lake Basin 2.20

NEW MEXICO

(Effective April 11, 1930)

Artesia 1.05
Hog Back 1.43
Maljamar ..... .95
Jal and Lea ..... *

(*) West Texas price scale used by The Texas Company and Humble Oil & Refining Co.

CANADA

(Effective June 28, 1930)

Oil Springs 1.95
Petrolia 2.02

LOUISIANA-ARKANSAS

(Effective April 11, 1930)

Homer, Haynesville, Caddo, El Dorado, DeSoto and Crichton and Cotton Valley*

Below 28 gravity .....$ .87
28 to 28.9 gravity ..... .92
29 to 29.9 gravity ..... .97
30 to 30.9 gravity 1.02
31 to 31.9 gravity 1.07
32 to 32.9 gravity 1.12
33 to 33.9 gravity 1.17
34 to 34.9 gravity 1.22
35 to 35.9 gravity 1.255
36 to 36.9 gravity 1.29
37 to 37.9 gravity 1.325
38 to 38.9 gravity 1.36
39 to 39.9 gravity 1.395
40 to 40.9 gravity 1.43
41 to 41.9 gravity 1.465
42 to 42.9 gravity 1.50
43 to 43.9 gravity 1.535
44 gravity and above 1.57

*Shreveport-Eldorado's postings stop at above 40 gravity.

The posting on Cotton Valley is same as Caddo. From 36 to 52 and above the regular gravity schedule is followed.

The Texas Company pays North Texas gravity scale in North Louisiana.

STEPHENS

Below 28 gravity .....$ .76
28 to 28.9 gravity ..... .81
29 to 29.9 gravity ..... .86
30 to 30.9 gravity ..... .91
31 to 31.9 gravity ..... .96
32 gravity and above 1.01

SMACKOVER

Below 24 gravity .....$ .90
24 and above 1.05

the Aviator must be sure of his motor

THE OIL MAN MUST BE SURE OF HIS EQUIPMENT

When the aviator gives it the gun and roars into the blue, he must be sure of the motor that pulls him forward and the wings that support his plane. Upon correctly adjusted push rods, upon smooth working oil pumps and upon the dependability of every working part he stakes his hope of remaining aloft. He knows his own skill, but he also realizes his dependence upon the plane that bears him.

A FEW OF THE WELL KNOWN LINES AVAILABLE TO YOU THROUGH NORVELL-WILDER

Alemite Company
A. M. Byers Company
American Cable Company
Baker Oil Tool Company
Borden Company
Byron Jackson Company
Chain Belt Company
Gardner-Denver Company
Hercules Motors Corporation
Jefferson Union Company
Jones & Laughlin Steel Corporation
Kennedy Valve Manufactoring Company
Kerotest Manufacturing Company
Lunkenheimer Company
Wright Manufacturing Company

When the driller is making hole he is dependent on his rig. From rock bit to swivel he expects each tool to perform its function. A break anywhere along the line might lose the hole. At the very best, a delay is costly.

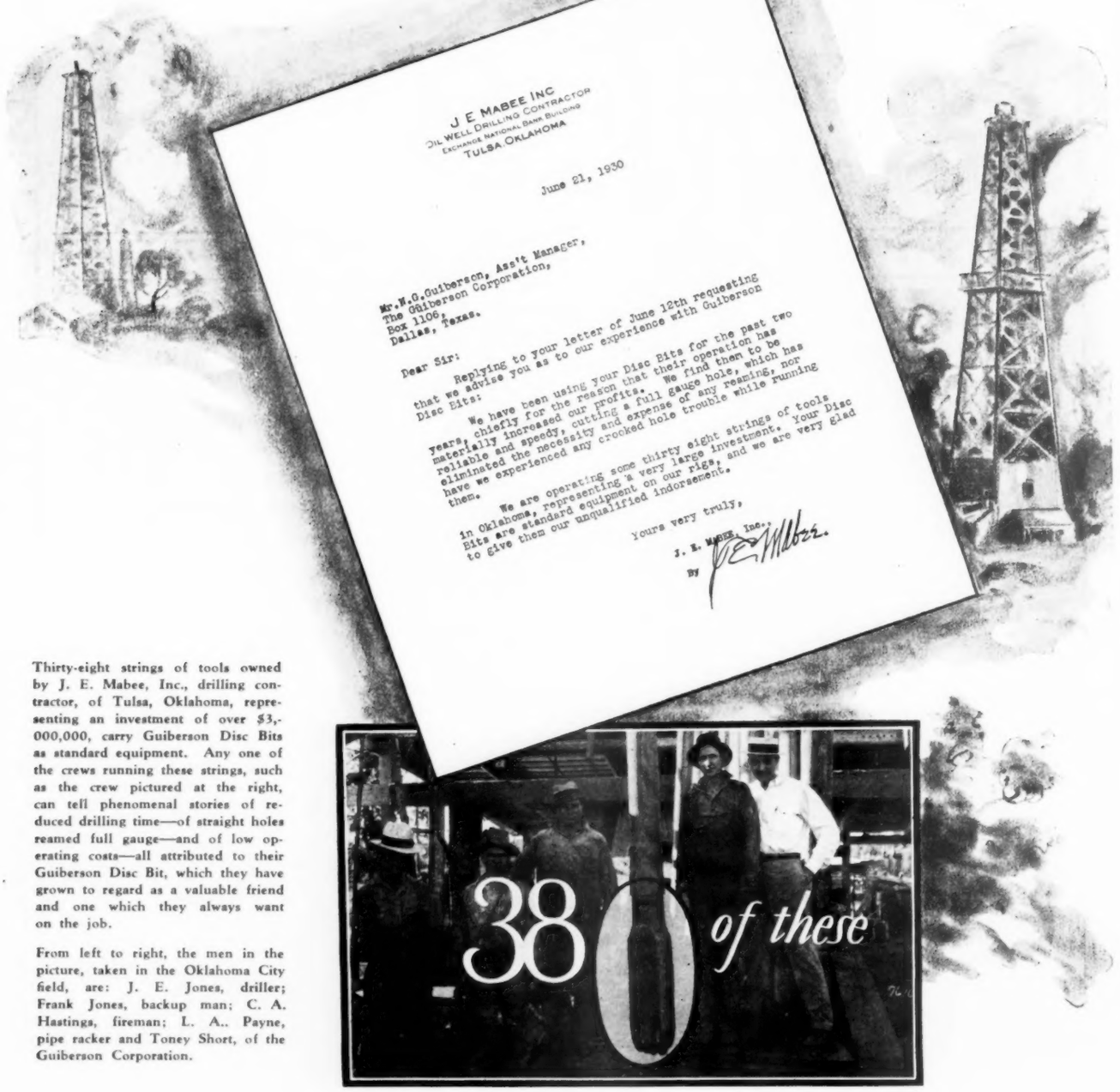
Successful companies want good equipment and quick service. Both can be secured from Norvell-Wilder.

When you want things quickly, night or day
call a NORVELL-WILDER MAN FIRST

Norvell-Wilder *Supply Company*

BEAUMONT HOUSTON SHREVEPORT FORT WORTH

The WORLD'S *Drilling Contractor* GUIBERSON


J E MABEE INC
OIL WELL DRILLING CONTRACTOR
EXCHANGE NATIONAL BANK BUILDING
TULSA, OKLAHOMA
June 21, 1930
Mr. W.G. Guiberson, Ass't Manager,
The Guiberson Corporation,
Box 1106,
Dallas, Texas.
Dear Sir:
Replying to your letter of June 12th requesting that we advise you as to our experience with Guiberson Disc Bits:
We have been using your Disc Bits for the past two years; chiefly for the reason that their operation has materially increased our profits. We find them to be reliable and speedy, cutting a full gauge hole, which has eliminated the necessity and expense of any reaming, nor have we experienced any crooked hole trouble while running them.
We are operating some thirty eight strings of tools in Oklahoma, representing a very large investment. Your Disc Bits are standard equipment on our rigs, and we are very glad to give them our unqualified indorsement.
Yours very truly,
J. E. Mabee, Inc.
By
38
of these

Thirty-eight strings of tools owned by J. E. Mabee, Inc., drilling contractor, of Tulsa, Oklahoma, representing an investment of over $3,000,000, carry Guiberson Disc Bits as standard equipment. Any one of the crews running these strings, such as the crew pictured at the right, can tell phenomenal stories of reduced drilling time—of straight holes reamed full gauge—and of low operating costs—all attributed to their Guiberson Disc Bit, which they have grown to regard as a valuable friend and one which they always want on the job.

From left to right, the men in the picture, taken in the Oklahoma City field, are: J. E. Jones, driller; Frank Jones, backup man; C. A. Hastings, fireman; L. A.. Payne, pipe racker and Toney Short, of the Guiberson Corporation.

LARGEST *uses exclusively* DISC BITS

J. E. MABEE OF TULSA, OKLAHOMA

is recognized without a rival as the world's largest drilling contractor. This position signifies leadership in a business which is noted for hardships—where keen judgement and correct decisions are the essence of success. Ten years of exemplary operations have brought J. E. Mabee, Inc., from a modest, one-rig beginning to a present day organization owning thirty-eight strings of tools representing an investment of over $3,000,000.

Guiberson Four Disc Reaming Rotary Bits are standard equipment with these thirty-eight strings. This means that the income producing medium, or in other words, the thing that does the work for an investment of $3,000,000 is a Guiberson Disc Bit. Considering that the Guiberson Disc Bit is thus depended upon throughout the organization—the fact must be regarded as an indication of superb confidence.

But this confidence did not come before a trial. J. E. Mabee watched the Guiberson Disc Bit perform. He noted its remarkable speed, its full-gauged, reaming descent, its straight hole drilling—and then last, but most important of all, he summed up its cost of operation and selected it because it cut down his expenses and, as he says in his letter, "materially increased our profits."

"Better Be Safe Than Sorry"
THE GUIBERSON CORPORATION
Box 1106, Dallas, Texas
California Branch: 1506 Santa Fe Avenue, Los Angeles
621 Kennedy Bldg., Tulsa
321 S. Osage St., Ponca City
506 Trust Bldg., Newark, O.

GUIBERSON

BETTER BE SAFE THAN SORRY

Simplicity and Long Wearing Qualities Mark These Two E. & T. TOOLS

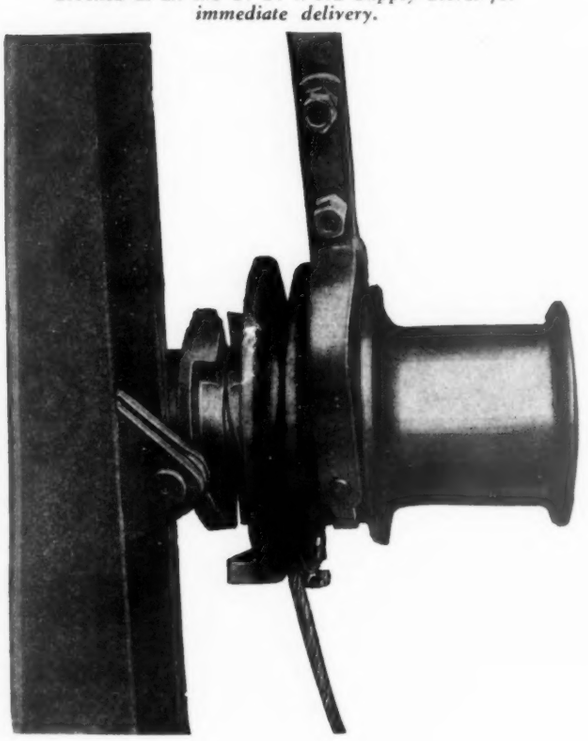
EASON & THEROLF ALL STEEL VALVES

Eason & Therolf Slush Pump Valves are of one-piece steel construction. They are of the wing-guide type design, and have no inserts. The guides are sturdy, yet they obstruct less than 8 per cent of the full port area of the valve. The seat is designed with a double taper. The area on which objects may lodge and prevent seating is reduced to a minimum. The valve is thus self-cleaning. A recess in the base of the cap holds fluid when the valve is closed, and acts as a positive fluid seal. Remarkably long records of service in slush pumps has caused them to be specified as standard by many operators. Made for slush pumps, cement pumps and oil pumps.

EASON & THEROLF TOOL JOINT BREAKER AND CATHEAD

The Eason & Therolf Tool Joint Breaker and Cathead is probably the simplest tool of its kind on the market. It is easy to install, is a long-life tool, and applies a powerful, steady and even pull to break out joints. A mandrel with driving clutch face is keyed to the shaft in place of a plain cathead. A sheave for the tong line with clutch jaws on its inner face, idles on the mandrel. A clutch shifter yoke slides the tong line sheave into engagement with the driving clutch. At the end of the 42 inch stroke, a tapered cam on the tong line sheave strikes a roller bracket on the drawworks post and positively and automatically releases the tong line sheave. Because of its strength, simplicity, slow-wearing qualities and positiveness of operation, it is rapidly winning friends in the oil fields.

Stocked at all the T. T. Word Supply Stores for immediate delivery.



T. T. WORD SUPPLY CO., Inc.

Lake Charles **HOUSTON** **Shreveport**

Mail Addressed to
P. O. Box 276
Houston, Texas

THE BEST KNOWN WORD IN THE OIL BUSINESS

SEGUIN

PHONES:
Day—Preston 1927
Night—Valentine 21022
Hadley 1973

United States Daily Average Production

Figures below are taken from the complete revised estimates of the AMERICAN PETROLEUM INSTITUTE except for the current week, which are advance estimates issued by the A. P. I. and are subject to revision:

1929	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Arkansas	Eastern States	Rocky Mountain	California	United States Daily Av.	United States Total
May	679,650	115,400	651,100	150,350	35,350	71,500	114,150	72,850	749,250	2,639,600	81,827,600
June	685,200	120,750	688,200	147,500	35,700	70,050	116,750	72,000	827,200	2,763,400	82,902,250
July	722,050	124,250	718,950	148,150	35,750	68,650	122,000	74,250	874,850	2,888,900	89,555,250
August	728,100	127,950	750,750	153,100	36,300	66,900	126,600	77,900	873,300	2,940,900	91,167,250
September	714,050	128,450	741,200	156,600	37,050	65,300	137,250	78,600	874,850	2,933,350	88,000,650
October	673,600	113,400	714,550	167,050	39,700	64,550	137,400	77,950	876,600	2,864,800	88,809,500
November	640,300	110,050	702,350	171,350	36,750	63,700	135,400	76,550	706,500	2,642,800	79,285,050
December	650,000	111,600	687,850	161,350	38,700	61,850	140,650	76,150	698,200	2,626,350	81,417,000
1930											
January	671,050	111,700	672,650	178,300	37,650	58,500	142,250	73,850	688,850	2,634,800	81,574,650
February	631,900	111,400	654,600	199,950	39,450	58,400	135,050	74,850	746,550	2,652,150	74,280,200
March	622,650	115,500	644,400	206,000	41,600	58,600	132,700	73,600	649,000	2,544,050	78,865,400
April	657,050	122,200	640,950	206,800	42,100	57,800	138,700	75,950	625,700	2,576,250	77,018,100
May	663,300	131,000	662,350	203,900	39,900	53,800	137,150	82,500	623,700	2,597,700	80,529,600
June	665,550	133,600	668,300	210,500	40,300	56,900	135,750	84,600	598,000	2,593,500	77,806,900
July	594,750	121,600	652,350	209,400	40,550	55,400	137,200	98,350	610,450	2,520,050	78,121,200
Aug. 2	554,650	116,450	692,700	208,200	41,650	55,050	135,100	104,800	606,700	2,515,300	17,607,100
Aug. 9	560,650	117,950	643,450	207,550	42,600	55,500	132,050	103,350	616,100	2,480,200	17,361,400
Increase	6,000	1,500	.....	.....	950	450	.....	.....	9,400	.....	.....
Decrease	.....	.....	49,250	650	.....	.....	3,050	1,450	.....	35,100	245,700

TEXAS
(Outside Gulf Coast)
PANHANDLE DISTRICT

	Aug. 9	Aug. 2
Carson County	9,300	8,700
Gray County	66,950	65,250
Hutchinson County	20,500	21,400
Wheeler County	500	750
Others	400	300
Total	97,650	96,400

NORTH TEXAS

Archer County	16,050	16,150
Burkburnett	6,250	6,300
Electra	12,600	12,600
Iowa Park-KMA	5,600	5,650
Montague and Cooke Cos.	9,700	9,750
Wilbarger	21,000	22,050
Others	1,700	1,700
Total	72,900	74,200

WEST CENTRAL TEXAS

Brown County	6,100	6,400
Callahan County	3,300	3,600
Coleman County	3,300	3,500
Eastland-Desdemona	5,500	5,600
Jack County	2,400	2,150
Palo Pinto County	500	500
Shackleford County	7,100	7,150
Stephens County	5,600	5,550
Throckmorton County	800	1,000
Young County	18,050	18,950
Others	1,100	1,000
Total	53,450	55,400

WEST TEXAS

Crane-Upton Counties	39,400	38,800
Crockett County	2,300	2,250
Ector	10,200	17,800
Howard County	23,550	27,500
Jones County	1,350	1,250
Mitchell-Scurry Cos.	2,150	2,200
Pecos County	3,400	3,400
Reagan County	21,600	20,950
Winkler County	79,100	78,500
Yates	103,000	103,900
Others	4,650	4,500
Total	290,700	301,050

EAST CENTRAL TEXAS

Boggy Creek	2,900	3,100
Corsicana-Powell	5,650	5,700
Currie	300	350
Mexia	4,350	4,450
Nigger Creek	200	200
Richland	200	250
Van Zandt	24,900	26,200
Wortham	900	900
Total	39,400	41,150

SOUTHWEST TEXAS

Dale	300	300
Darst Creek	45,000	77,800
Laredo District	13,700	13,200
Luling	9,900	9,850
Lytton Springs	900	850
Salt Flat	17,300	20,200
Somerset	1,600	1,600
Others	650	700
Total	89,350	124,500
Total Texas (Outside Gulf Coast)	643,450	692,700

TEXAS GULF COAST

Barbers Hill	17,900	18,600
Batson	1,200	1,200
Big Creek	4,100	4,150
Blue Ridge	1,600	1,600
Boling	1,100	1,150
Damon Mound	700	700
Esperson	2,400	2,300
Fannett	900	900
Goose Creek	4,700	4,700
Hankamar	2,800	2,400
Hull	8,350	8,200
Humble	19,100	19,500
North Dayton	900	1,800
Orange	2,100	2,100
Orchard	1,850	2,000
Pettus	6,400	6,200
Pierce Junction	11,800	12,100
Port Neches	2,150	2,200
Raccoon Bend	11,900	12,000
Refugio	30,650	31,600
Saratoga	1,000	1,000
Somerville	1,450	1,500
Sour Lake	2,200	2,200
South Liberty	3,700	3,800
Spindle Top	16,500	16,600
Sugar Land	11,850	12,000
West Columbia	4,700	5,450
Others	2,400	2,300
Total	176,400	180,250
Texas Total	819,850	872,950

OKLAHOMA

Allen	15,650	15,050
Asher	1,200	1,050
Blackwell	3,200	3,200
Bowlegs	14,000	13,800
Braman	3,300	3,300
Bristow Slick	15,350	15,400
Burbank	15,600	15,800
Carr City	5,000	6,300
Cromwell	7,700	7,700
Cushing	13,400	13,400
Davenport	1,200	1,200
Duncan District	10,100	10,050
Earlsboro	16,200	18,950
East Earlsboro	18,100	13,050
East Little River	15,150	10,300
East Seminole	2,400	2,000
Fox	1,250	1,250
Garber	4,300	4,300
Graham	3,300	3,300
Healdton	12,000	12,000
Hewitt	7,100	7,150
Hubbard	1,500	1,500
Konowa	24,000	16,650
Little River	23,050	25,950
Logan Co.	4,750	4,500
Maud	3,050	3,150
Mission	5,450	7,250
North Okmulgee	10,450	10,450
Okla. City	96,850	100,400
Osage (outside Burbank)	26,000	26,000
Papoose	2,700	2,750
Pearson	650	800
St. Louis	22,900	24,150
Sasakwa	7,200	5,450
Schoolem Alechem	15,000	14,200
Searight	7,450	7,900
Seminole	14,450	14,950
S. Earlsboro	12,850	10,100
South Okmulgee	7,200	7,200
Thomas	650	650
Tonkawa	7,000	7,050
West Asher	4,100	7,100
Wewoka	3,500	3,500
Yale Jennings	7,900	7,950
Others	66,500	66,500
Totals	560,650	554,650

CALIFORNIA

Dominguez	10,000	10,000
Elwood-Goleta	48,900	41,500
Huntington Beach	28,700	28,300
Inglewood	17,400	17,200
Kettleman Hills	13,000	13,300
Long Beach	102,000	101,400
Midway-Sunset	63,000	63,000
Santa Fe Springs	109,800	110,000
Seal Beach	20,300	21,000
Ventura Avenue	48,000	48,000
Others	155,000	153,000
Total	616,100	606,700

KANSAS

Augusta-Fox Bush	2,800	2,750
Churchill	3,800	3,800
Eldorado-Towanda	14,000	14,050
Florence-Covert	750	750
Greenwood County	19,000	19,000
Oxford	2,750	2,700
Peabody-Ebling	2,600	2,600
Rainbow Bend	1,050	1,100
Russell	3,100	3,100
Sedgwick	19,250	19,000
Voshell	11,850	10,100
Others	37,000	37,500
Total	117,950	116,450

NORTH LOUISIANA

	Aug. 9	Aug. 2
Caddo Heavy	2,500	2,600
Caddo Light	9,500	9,550
Carterville	3,800	3,100
Cotton Valley	2,000	2,050
DeSoto-Red River	3,100	3,100
Haynesville	4,800	4,600
Holly	1,100	1,050
Homer	3,500	3,550
Urania	5,200	5,200
Zwolle	5,400	5,250
Others	1,700	1,600
Totals North Louisiana	42,600	41,650

LOUSIANA GULF COAST

Bayou Boullion	1,400	50
East Hackberry	4,550	2,150
Edgerly	400	550
Evangeline	2,100	2,200
Hackberry	1,200	1,150
Lake Barre	1,300	1,300
Lockport	2,850	2,950
Port Barre	3,700	4,200
Sorrento	100	100
Sulphur Dome	3,600	3,800
Sweetlake	1,300	100
Vinton	7,000	6,700
Others	2,650	2,700
Total Louisiana Gulf Coast	32,150	27,950
Louisiana Total	74,750	69,600

ARKANSAS

Champagnolle	4,750	4,400
El Dorado	4,200	4,100
Lisbon	950	950
Nevada	1,000	1,050
Smackover Heavy	37,300	37,300
Smackover Light	5,100	5,100
Stephens	950	900
Others	1,250	1,250
Total	55,500	55,050

MOUNTAIN STATES
WYOMING

Big Muddy	1,700	1,750
Elk Basin	900	800
Grass Creek	2,000	2,100
La Barge	1,750	2,250
Lance Creek	150	150
Lost Soldier	1,050	1,050
Oregon Basin	2,900	2,900
Rock River	2,100	2,150
Salt Creek	29,600	30,050
Others	4,200	4,500
Total	46,350	47,800

MONTANA

Cat Creek	1,150	1,150
Pondera	2,100	2,400
Sunburst	5,850	5,850
Others	50	50
Total	9,150	9,450

COLORADO

Florence	450	600
Fort Collins	1,250	1,200
Moffats (Craig)	1,150	1,250
Others	1,550	1,600
Total	4,400	4,650

NEW MEXICO

Artesia	750	700
Bal. Lea & Eddy Co.'s	40,750	40,250
Hogback	450	450
Rattlesnake	1,300	1,400
Table Mesa	100	100
Others	100	100
Totals	43,450	43,000
Totals Mountain States	103,350	104,800

EASTERN STATES

(Including Ill., Ind., Ohio, W. Va., Pa., Ky., N. Y.)	122,000	124,500
Michigan	10,050	10,600
Total Eastern States	132,050	135,100

PRODUCTION SUMMARY

East of Rockies	1,760,900	1,803,800
Total U. S.	2,480,200	2,515,300

Program For Southwestern A. P. I. Production Division Arranged

DALLAS, Texas.—The program for the fall meeting of the southwestern district, A. P. I. Division of Production, to be held at the Buccaneer hotel, Galveston, September 4 and 5, has been tentatively arranged by the district program committee. It is proposed to have a two-day meeting, the first day being devoted to especially prepared papers and discussions, and the morning of the second day to possibly one prepared paper. The remainder of the session will be devoted to question box discussions similar to those recently held at Midland.

The program for the two-day meeting follows:

First Day—September 4

1. "Results of Survey of Oil Field Equipment for Conformance to A. P. I. Specifications," by W. C. Shutts, Humble Oil & Refining Company, Houston.
2. "Equipment and Methods for Preventing Blowouts in Drilling," a group paper by Southwestern District Committee on Drilling Practice, C. W. Alcorn, chairman.
3. "The Advantages of Insulation of Oilfield Boilers," by W. H. Meier, Atlantic Oil Producing Company, Dallas.
4. "Proper Installation of Gas Separators to Obtain Maximum Efficient Separation of Oil and Gas," by a speaker to be selected.
5. "Further Development of Cementing, Practice in the Gulf Coast Area, Continuation of Studies by Messrs. Manning and Doherty, by W. T. Doherty and M. Manning, Humble Oil & Refining Company, Houston.
6. "Results Obtained in Yates Field by Tubing Flowing Wells," by Harvey Hardison, The California Company, Midland.
7. "Report of Committee on Designation of Flow Bean Sizes," by W. W. Scott, chairman Drilling Practice Committee.

Second Day—September 5, Morning Session

1. "Description of Deep Well Drilling in the Big Lake Oil Field," by a speaker to be selected.
2. Question box.
   Discussion will be invited on any particular problem that is presented from the floor. Everyone is privileged to present problems on which they desire information or discussion. To facilitate the handling of the problems, it is requested that they be submitted to the secretary of the division, E. S. Durward, Shell Petroleum Corporation, Dallas, Athletic Club Building, Dallas, Texas, in writing prior to the meeting.

Afternoon—September 5

There will be no afternoon technical sessions on September 5. This is left open for recreational purposes. No especially prepared program will be arranged, it being left optional with the various individuals to make their own arrangements.

Action on Texas Proration Expected Soon

AUSTIN, Texas.—Definite action on state-wide proration for Texas is expected to be taken this week, according to Pat M. Neff, chairman of Railroad Commission of Texas. Sufficient evidence has been placed before the railroad commission by operators' committees representing practically every section of the state, to enable the commission to take definite action on this matter. If plans of the joint committee of producers and pipe lines of Texas are favorably acted upon this week, it is possible that practically all fields in Texas will be placed on a definite proration schedule within the next two weeks.

Considerable time has been devoted to hearing all sides of the question of proration by the commission, the result having shown that a majority of Texas operators favor curtailment of crude production. Opposition to the curtailment plan advocated by the joint committee was voiced by Harrison Oil Company and Yount-Lee Oil Company, on the ground that the proposed order was designed to bolster up crude prices, rather than prevent physical waste of this natural resource. These companies, through their attorneys filed a lengthy petition disputing the commission's authority to restrict oil production in the state. Other operators who doubted the wisdom of state-wide proration included O. K. Killiam of Laredo and operators within the Big Lake field, West Texas. There was also some opposition from operators in the coastal fields, some of whom declared that it would be necessary to consider each field separately, rather than ordering blanket reductions in production of all producing areas in the state.

On the whole, it appears that a majority of operators of the state are in favor of the plan proposed by the joint committee. Where opposition has developed, the commission has received the evidence submitted and is now engaged in considering the steps necessary to bring about an equitable plan of proration that will be fair to all concerned. The matter of curtailing flush production in the Gulf Coast area, even though the demand exceeds present production, can be readily solved by withdrawing the difference from storage. According to Underwood Nazro, of Gulf Production Company, there is now in storage in the Gulf Coast fields of Texas about 16,000,000 barrels of oil, while the stored supply of the state has reached the large total of 136,000,000 barrels. He stated that this is evidence of actual waste as this stored oil is constantly evaporating and deteriorating.

Amarillo, Texas.—Phillips Petroleum Company is constructing about 24 miles of 20-inch line to transport natural gas from the Finley-Brown and Bowers-Jackson fields, Gray County, to Skellytown, where the gas will be delivered on contract to Missouri Valley Pipe Line Company. The latter company's 24-inch trunk line extends from Skellytown to numerous cities and towns in Nebraska and Iowa, and construction work is well under way.

Phillips Petroleum Company has contracted to deliver 80,000,000 cubic feet of residue gas daily from two of its plants in the above Gray County areas to Missouri Valley Pipe Line Company. It is also reported that Skelly Oil Company has contracted to sell 50,000,000 cubic feet of gas daily from its natural gasoline plant residue to the same concern.

Texas Pipe Line Company Rushing Work on 20-Mile Parallel Line

Hobbs, New Mexico.—Texas Pipe Line Company is rushing construction work on about 20 miles of eight-inch line that will parallel the company's six-inch carrier, extending from Hobbs junction to Jal station, in order to expedite the handling of crude from the Hobbs field. Shell Pipe Line Company's eight-inch line originating in the Hobbs field ties into the above company's six-inch carrier at Hobbs junction, and the latter does not offer sufficient capacity to accommodate oil receipts from Hobbs and also the Lea pool. Arrangements have been made by The Texas Company for Shell Pipe Line Company to transport the former's production in Hobbs field to Hobbs junction, while The Texas Pipe Line Company performs common carrier service for Shell Pipe Line Company from Hobbs junction to Wink, Texas, where the latter's oil is turned into its own line again.

The Texas Pipe Line Company has also contracted to handle 1000 barrels oil daily on common carrier basis to Gulf Coast from Tidal Oil Company's Coleman 1, which is in process of completion in the Lockhart-Meyer pool, Lea County. Pipe line connections have been made with Coleman 1, which is located in Section 17-21s-36e, and the production will be accepted at tidewater by Tidal Refining Company.

Oklahoma--Kansas Field Notes

FLOYD L. SWINDELL, *Staff Representative, Tulsa, Oklahoma*

New Oil Pool is Opened in Rice County, Kansas

WICHITA, Kansas.—Completion of Tatlock et al's Ploog 1, CSW SE, Section 33-18s-9w, marked the opening of a new pool for Rice County, Kansas. Siliceous lime was topped at 3252 feet and when deepened one foot, the well flowed 191 barrels in six hours and 15 minutes, and 383 barrels the first 12 hours. The oil tests 48.6 degrees Baume, corrected. The well is located slightly north of the center of a community block containing approximately 10,000 acres and owned by Carter Oil Company, Empire Oil & Refining Company, J. A. Hull Company, Shell Petroleum Corporation, and J. H. Tatlock. Shell Petroleum Corporation will assume control of operations under the community agreement.

Five major companies have large blocks of acreage in Rice County. Shell Petroleum Corporation has four blocks comprising approximately 20,000 acres; Continental Oil Company has a solid block containing more than 21,000 acres; Gypsy Oil Company has three blocks containing approximately 16,000 acres; Empire Oil & Refining Company has 11,520 acres; and Skelly Oil Company has approximately 4700 acres. In addition to the blocks owned by major companies there are more than 60,000 acres held by independent oil companies and the remainder of the county is closely covered with checkerboard blocks.

Operators in the Voshell pool are being asked to extend the present proration agreement to include the month of September. During the period July 1 to August 1, the pool established a daily potential of 60,198 barrels for a gain of 6000 barrels over the preceding period. Average pipe line outlet for the first week in August was about 10,000 barrels daily and operators are urged to restrict production to 16 2/3 per cent of potential. There are now 90 producing wells.

The Eastborough pool, in the east edge of Wichita, with nine producers has a potential of approximately 9000 barrels daily and a daily pipe line outlet of only about 2500. Vickers Petroleum Company will complete its four-inch line within the next week or 10 days adding approximately 5000 barrels to the outlet. Operators have been unable to agree on any sort of a proration scheme. Vickers Petroleum Company and G. W. Hinkle's Joe Keys 7, NWc W½ NE, Section 30-27-2e, was a disappointment when completed in the chat for 103 barrels in eight hours on the swab. Each of the offsets to this well is good for 1000 barrels or more. The same operators' Keys 1, is the only well now producing from the Wilcox and, after testing the chat, Keys 7 will be deepened to that horizon.

The Schurr pool in Rice County, which has been closed in because of no outlet, seems likely to get connections from Prairie Pipe Line Company, provided operators are able to put into effect an orderly plan of development and proration. Independent Oil & Gas Company formerly served the area. The pool now has five producers with a potential of approximately 7000 barrels and two wells in the proven area are shut down on top of the producing horizon. The move of operators to obtain Prairie connections will, if successful, give only a limited outlet, but will further serve to demonstrate the effort of the pipe line companies to equitably apportion market requirements among the pools of the state.

Fredell Construction Company's Persinger 1, CSE, Section 22-31s-38w, Stevens County, was completed as a 10,000,000 foot gasser from a series of sands between 2495 and 2555 feet. This well is located four miles from the Grant County line and eight miles from the nearest production to the south, and extends a gas producing area already proven over a large area in Stevens and Morton Counties. Approximately 60 miles southwest of the Persinger 1 and within four miles of the Colorado-Kansas line, Hydraulic Oil Company's Kansas State Agricultural College 1, SE Section 22-34s-43w, is showing for better than 1,000,000 feet of gas at 2685 feet. Lease play is extending into Baca County, Colorado, and southward into the Oklahoma Panhandle.

Southern Oklahoma Fields On Proration Basis Since August 10

TULSA.—Southern Oklahoma joined the movement to prorate production, when, on the morning of August 10, the Tatums pool, township 1s range 3w, was placed on a percentage of potential, plan. Wells are to be prorated as follows: 100 barrels and under, 50 per cent of potential; 100 to 200 barrels, 37½ per cent of potential; 200 to 300 barrels, 26¼ per cent of potential; 300 to 400 barrels, 22½ per cent of potential; 400 barrels and over, 18¾ per cent of potential.

Daily potential was set at 5340 barrels as of August 1 and proration made retroactive to that date but it is not believed that operators will be required to make up any overage during the period August 1 to August 10, due to the fact that pipe line companies have been able to move all production.

Most recent completions in the field are Trevelyn Oil Company's Mitchell 2, NW SW SE, Section 24-1s-3w, for an initial production of 815 barrels in 10¾ hours from a series of sands between 2275 and 2452 feet, and Wirt Franklin Petroleum Corporation's Mitchell 1, NW NW SE, Section 24-1s-3w, which logged a series of sands between 2316 and 2461 feet and gauged 1387½ barrels during the first 17 hours. Nine wells are drilling, three are waiting on cement, and seven are rigs, rigging up, or locations.

Exploration for production from deeper sands in the old Cement pool, although not as yet rewarded with any find of a major nature, has revived interest in Caddo County. J. J. Wright and Shell Petroleum Corporation have announced location for a wildcat test in NW NW, Section 18-9n-13w, north of the town of Alfalfa in the western part of the county. This is to be a 5000-foot test and is located on a 1600-acre block. At the Indian lease sale held August 6, at the Kiowa Agency, Anadarko, Caddo County tracts brought top prices and but few were passed. Carter Oil Company paid top price for the southwest quarter of Section 17-6n-10, northwest of the Cement pool. This tract was sold for $6560.

North of Springer, George Livingston, Chapman 1, C N½ SE NW, Section 18-2s-2e, is rigged up and shut down. The test is located about five miles north of the town of Springer approximately in the middle of the Arbuckle limestone outcrop. The Arbuckle formation in this section is limestone near the top and dolomitic in the lower part, leading some geologists to believe that the siliceous lime production in Oklahoma City is coming from the lower part of the formation and that the upper limy phase was removed by erosion prior to deposition of the Post-Ordovician sediments. Based upon this theory, a well located

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on the outcrop of the upper part of the formation, might find production in the dolomitic phase.

McCarty and Son and K. W. B. Drilling Company's Hattie and Eva Noble 1, SW NW SE, Section 14-2s-2w, about one mile east of production in the Ed Cox pool, is drilling below 1400 feet. Approximately three-quarters of a mile southwest of production in the old Hewitt field, J. H. Hudson et al's Fulton 1, NW SE SW, Section 28-4s-2w, is drilling below 4800 feet.

Konowa field of southern Seminole County, gauged 82,626 barrels for its potential as of August 1, production for the fiscal week being as follows:

Date—	Production	No. of Wells
August 5	40,686*	95
August 6	26,117	94
7	16,730	94
8	26,407	96
9	17,330	95
10	15,721	95
11	14,178	95

*Part of the wells were taking their potentials on this date.

The East Earlsboro pool gauged 12,048 barrels Saturday morning, August 9, South Earlsboro 8120 barrels, and East Little River 16,032 barrels. During July Seminole storage was reduced at the rate of 6096 barrels daily, there being at the end of the month a total of 17,170,790 barrels in storage or 235,598 barrels less than was held at the end of June. Total storage capacity in the area is 24,845,000 barrels, leaving at the end of July, 7,619,210 barrels room for additional storage.

One test in the Seminole area is being closely watched. Dixie Oil Company-Amerada Petroleum Corporation's Hawkins 1, NW NE SW, Section 29-9n-6e, had the top of the Woodford at 3790 feet and was drilling below 3840 feet in Woodford when last reported. The test is running high and may reveal the existence of another accumulation similar to those discovered within the last year. Minnehoma Oil Company's Brown 1, SW NE NE, Section 17-7n-8e, was trying to mud off gas at 2927 feet. The well was making 21,000,000 cubic feet with a rock pressure of 995 pounds. In the next township north, T. Atkins et al's Shepherd 1, SE SE NE, Section 17, had the base of the first Wilcox at 4320, second Wilcox at 4355 feet, and a hole full of water at 4361 feet.

Indian Territory Illuminating Oil Company's Butler 4, NE SW NW, Section 23-6n-3e, in the West Asher-Wanette pool, had the base of the sand at 3476 feet and at a total depth of 3478 feet produced 1287 barrels in 12 hours.

Efforts to locate production in northwestern Oklahoma seem likely to be rewarded on the basis of the showing made during the past few days by Sinclair Oil and Gas Company's Howell 1, CSW SW, Section 14-26n-24w, Harper County. This test was drilled to 8583 feet, being the deepest test ever made in Oklahoma. The 6⅝-inch casing was shot at 5300 feet and gas production estimated at 7,000,000 to 10,000,000, was encountered. At last report the gas was coloring with a show of oil; the well having been plugged back to 6737 feet with no definite information as to the source of the gas.

Oklahoma City Field Extended to West; New Shut-in Started

OKLAHOMA CITY.—Several hundred unit holders in Century Petroleum Company's Wyatt 1, CNE NW NW, Section 2-11n-3w, had a thrill Sunday, August 10, when the well was completed for an estimated 5000 barrels and 125,000,000 feet of gas. It was shut in immediately to install a second separator. Total depth is 6550 feet. This completion extends production two locations west of Franklin's Wright 1 which was completed in June. Two hours after completion of the Wyatt 1, Jones Drilling Company and Blackwell Oil & Gas Company's Sullivan 1, SE SW NW SW, Section 1-11n-3w, started cleaning and during the first 18 hours put 11,700 barrels of oil into the tanks along with an estimated 30,000,000 gas. This well, although an inside location, is of interest because of the fact that it is located on a 50 by 140 foot tract and has caused considerable difficulty. At a point slightly below 4600 feet, the hole ran into that of Indian Territory Illuminating Oil Company's W. J. Phillips 1, located across the road to the east. The wells are less than 50 feet apart and only a small deviation from vertical would run them together at this depth.

In the southern part of the pool, Indian Territory Illuminating Oil Company's Mary Sudik 5, SW NE SW, Section 31-11n-2w, was drilling below 6700 feet with cable tools and had produced 48 barrels by heads. This well is a southeast offset to the famous Mary Sudik 1 which had the sand at 6445 to 6470 feet and was estimated at 30,000 barrels initially. It is a west offset to No. 4 which gauged 16,199 barrels at a total depth of 6660 feet. Across the line in Cleveland County Indian Territory Illuminating Oil Company's Reynolds 1, NE NE NW, Section 6-10n-2w, was bailed down at 6705 feet and made two small flows with about 2300 feet of oil in the hole. Cable tools are being rigged up to drill to the Wilcox sand which had not been encountered at the present depth. Prairie Oil & Gas Company's V. Sudik 1, NWc, Section 5-10n-2w, fifth location east of the Reynolds 1, was drilling at 6730 feet in Simpson with nothing showing.

During the three-day period beginning Saturday morning at seven o'clock, August 9, only underproduced and new wells will be allowed to produce. This is the second shut-in of its kind within the past 30 days and apparently is going to attain more success than the previous attempt at relieving the storage situation. Production for the seven-day period ending prior to Saturday, August 9, averaged 103,333 barrels daily and for the first two periods under the shut-in agreement averaged only 29,090 barrels. Pipe lines companies are taking about 85,000 barrels daily.

Kessler Oil Company Buys Oklahoma Properties

Oklahoma City. — The Kessler Oil Company has announced purchase of the half interest of F. C. Hall in the Hall and Briscoe independent oil firm for approximately $2,000,000 in cash, oil, and assumption of obligations. Powell Briscoe, owner of the other half, retained his holdings in the firm. The deal included only the holdings in the Oklahoma City field consisting of 160 acres of proven and semi-proven leases; 48 acres in the southwest quarter of Section 25-12n-3w; four producing wells, and eight drilling wells.

The four producers are on the west edge of the pool being Childs 1, NE SE SE SE, Section 14-11n-3w, which had an initial production of 11,799 barrels; Lindsay 1, NE SE NW, Section 14-11n-3w, which had an initial of 5186 barrels; Lindsay 2, SE NE NE, Section 15-11n-3w, which gauged about 1800 barrels, initially; and Holmes 1, NE NE SW SE, Section 10-11n-3w. All of the wells with the exception of the Childs 1, have been completed within the past four months and have a present actual potential in excess of 20,000 barrels daily.

Mr. Hall, who has been president of the firm, announced his retirement from active interest in the oil business, although he retained his holdings in other properties owned by the firm.

Wichita Falls, Texas.—A new chapter of the division of production, the American Petroleum Institute, has been formed for the Wichita Falls area, with headquarters here. The following officers have been named:

Frank M. Stauffer, Panhandle Refining Company, chairman; Lewis D. Ryan, Fresno Oil Company, vice-chairman, and C. B. Clement, The Texas Company, secretary.

Drilling Activity At Hobbs Approaching Peak Level

HOBBS, New Mexico.—Drilling activity in the Hobbs field is approaching its peak level, with indications that the high mark on number of rigs operating will be reached late in August. New locations and particularly outpost tests are not being started in sufficient numbers to prolong the present heavy volume of field activity, which is largely confined to an area that has been considered semi-proven for production for more than six months. The fact that the flush section of the field remains to be defined assures a steady development program beyond 1930, but operators will naturally be inclined to drill only a few tests at a time in their efforts to widen the productive limits of the field, which is now proven for a length of about six miles in a northwest-southeast direction, with an average width of more than a mile.

Active tests in the Hobbs field proper increased to 67, including several wells in process of completion, according to a survey made early this week, with derricks and rigs in process of installation on seven additional locations. Active tests made a gain of seven during the week even though one well was officially completed. New locations were made late last week by Sun Oil Company and The Texas Company in order that additional 40-acre units be placed on production at an early date to maintain an equitable share of the proration allowance. About 50 per cent of the active tests in the field are held by four companies, and the expected tapering off of field work will be largely borne by these particular companies, since they have been forced into a heavy volume of drilling to take care of offsets. Shell Petroleum Corporation leads the group with 12 active tests, while Humble Oil & Refining Company and Midwest Refining Company have started drilling on nine each, while Continental Oil Company has six rotaries running, making a total of 36 for the four concerns.

Completions became more numerous during the past seven-day period, as five wells were added to the list of producers in the field, although only one of this group has been officially gauged. Sun Oil Company's McKinley 1 made 11,080 barrels initial, with an estimated flow of 10,000,000 cubic feet of gas at 4175 feet, and has been shut in until the August 15-31 proration period. Amerada Petroleum Corporation scored its third heavy producer in as many trys August 8 when its State 1-A unloaded at 4160 feet, and showed for an estimated flow of 18,000 barrels of oil and about 21,000,000 cubic feet of gas daily. However, this well produced considerable rotary mud and water during the first few days, and has not cleaned itself adequately to permit an official production gauge.

The Texas Company's Frank Selman 1, located one-quarter of a mile south of the nearest production on the lower end of the field, developed a small producer after penetrating the regular lime horizon to 4183 feet, and will be shot. This well swabs about 75 barrels oil daily, but will be shot as a final effort to make a flowing producer. The Texas Company's State 1-C, offsetting three completed wells on the northwest end of the field, was running three-inch tubing early this week to complete at a total depth of 4206 feet. This well is certain to make a heavy producer, as the rotary crew has had to re-circulate the rotary mud every two hours to avoid a blowout.

Byers 33 Blows Out

Midwest Refining Company's Byers 33, Section 4-19-38e, failed to wait for final completion before demonstrating its oil and gas possibilities, and blew out at 4010 feet on August 8 with an estimated output of 10,000 barrels of oil and about 20,000,000 cubic feet of gas. However, it was shut in promptly, and may be deepened before equipping with tubing for final completion. This heavy producer is located only three-quarters of a mile northwest of the same company's discovery well of the field.

Landreth Production Corporation et al's State 1, located two miles north of production, has been ordered plugged at 4520 feet after encountering sulphur water at 4447 feet.

The California Company's State 1 contributed the first disappointment for the field in the so-called flush area, as it lacks the usual heavy flow of oil while the well has been unusually long in cleaning itself of drilling fluid. Even though this well is an offset to the largest producer in the field, it apparently encountered a tight lime condition, while the excessive volume of drilling fluid is believed to be coming from the neighboring well, which pumped more than 5000 barrels mud, baroid and water into the hole while drilling in and only a small percentage has returned with the oil flow. The California Company's well was making about 63 barrels fluid per hour, with 15 to 20 per cent drilling fluid early this week, and may yet come into its own when the heavy gas flow decreases.

HOBBS FIELD, NEW MEXICO, OPERATIONS

Operator—	Drilling Tests	Derricks & rigs	Locations	T't'l
Amerada Petroleum Corporation	4	.	1	5
Atlantic Oil Producing Company	1	1	.	2
The California Company	2	2	1	5
Continental Oil Company	6	.	1	7
Empire Gas & Fuel Company	2	1	.	3
Geo. F. Getty Oil Company	2	.	1	3
Gypsy Oil Company	5	.	.	5
Hobbs-High, Inc.	1	.	.	1
Humble Oil & Refining Company	9	.	.	9
Humble-Kirby Petroleum Company	.	1	.	1
Landreth Production Corporation et al	2	.	.	3
Midwest Refining Company	9	.	1	10
Ohio Oil Company	1	.	.	1
Ohio-Independent Oil & Gas Co.	3	.	.	3
Prairie Oil & Gas Company	1	.	.	1
Shell Petroleum Corporation	12	.	1	13
Skelly Oil Company	1	.	.	1
Sun Oil Company	.	1	.	1
The Texas Company	3	1	.	4
Texas Pacific Coal & Oil Co.	1	.	.	1
Tidal Oil Company	2	.	2	4
Total	67	7	8	82
Total previous week	61	14	8	83

Irregular performance of The California Company's State 1 has given rise to much speculation among Hobbs operators. It was generally expected to become one of the largest producers in the field because of it being a due south offset to Tidal Oil Company's Grimes 1, which recently earned a new

potential of 21,496 barrels at 4028-4160 feet after having produced more than 100,000 barrels of crude. Hard luck has dogged the trail of The California Company's State 1, as it required nearly three months to drill, with a short delay occurring when a boiler blew up on the afternoon of June 23. It failed to get proper circulation while cementing seven-inch pipe at 3907 feet necessitated a second try at cementing. The well blew out July 30 while coming out of hole with drill stem and core barrel at 4007 feet. This blowout was cut short by reason of the crew having prepared for such an emergency. The well flowed at rate of 20,000,000 cubic feet of gas daily, with a light spray of oil.

Gas Volume Cut One-Half

During the period that the well was blowing, the volume of oil and gas production and pressure gauges on Tidal Oil Company's Grimes 1, which was flowing through tubing, decreased about 50 per cent, but resumed normal levels immediately after the offset was shut in. This development gave reason for the belief that State 1 was about to enter the same porous oil horizon that enabled Tidal Oil Company to score a record well for the field. After lubricating off the gas flow and regaining circulation, The California Company's State 1 cored and drilled to 4160 feet, where circulation was lost for a short period. Drilling continued to 4170 feet, and a string of three-inch tubing was suspended in the hole to the 4147-foot level before proceeding with bringing in the well. The crew began swabbing the well about 1:30 p.m., August 6, causing the flow to start natural. The well was turned into pits for three hours, then gauged 150 barrels fluid, testing 90 per cent water and mud per hour, with the gas flow rated at 30,000,000 cubic feet daily. The flow continued into the pits throughout the following night, with the stream diverted through the separator.

A gauge taken about dawn on August 7, with 68 pounds back pressure on the gas trap, credited The California Company's well with making 70 barrels fluid per hour, 80 per cent water and mud. Nine hours of wide-open followed, then the well gauged 46½ barrels fluid, 35 per cent water in one hour through tubing. The next hour was taken through casing and the well made 57½ barrels fluid, 45 per cent cut, then made 82½ barrels fluid, 25 per cent cut, and flowing through casing and tubing.

Sun Oil Company's H. D. McKinley 1, C NE NE Section 5-19s-38e, was completed on the afternoon of August 4 under perfect control with an initial production of 11,080 barrels of 38 gravity, 76 degrees temperature, oil at 4175 feet. This well is one of the first to be completed that has complied with the state's new rule as regards setting the last string of casing nearer the top of the main oil horizon, thus shutting off a large percentage of the upper dry gas, and a heavy flow of oil was encountered without the usual gas waste. McKinley 1 set seven-inch casing at 3984 feet, and cemented with 225 sacks. Pressure was held for six days prior to drilling the plug. Three-inch tubing was suspended down to the 4132-foot level. The well gauged 225 barrels of clean oil through tubing per hour after cleaning itself within several hours. On the same afternoon of its completion, the flow was diverted from the tubing to casing only, and the well refused to flow, but later made 238 barrels per hour through tubing. It remained shut in overnight, then made 420 barrels clean oil per hour opening. Umpire Staley happened along during these tests, and made the official proration gauge, which credits the well with 461.7 barrels per hour, or an initial of 11,080 barrels daily, with 32 pounds pressure on the tubing; 12 pounds pressure on the gas trap; and six pounds pressure on the two four-inch flow lines. Since this well was completed between proration periods, no oil will be run until the August 15-31 period. Sun Oil Company has dismantled the steel derrick to drill McKinley 2 in the southeast corner of its 160-acre lease, thus creating two offsets for The Texas Company and one for Midwest Refining Company.

Production in the Hobbs field assumed important proportions during July when all wells became connected to pipe lines for the first time, and the total output for the month jumped to 996,911 barrels, or an average of 32,161 barrels daily. Hereafter, for an indefinite period, the field is slated to contribute more than 1,000,000 barrels oil monthly, as the current proration allowance is 35,000 barrels daily, and the latter quota may be increased.

Refiners Like Crude

Crude produced in the Hobbs area is popular with refiners having adequate facilities to extract the most valuable properties contained therein, such as lubricating oil and anti-knock gasoline. The common stream of oil of the three pipe line companies registers an average gravity of 36 degrees, corrected, and this commands the top posted price, which is $1.01 per barrel for 36 gravity and above. The oil is said to be of a quality that places it about midway between Mid-Continent high gravity sweet oil and West Texas sulphur crude, but does not carry as high a sulphur content as the latter. In processing Hobbs crude it is reported that the best results are obtained when the oil is mixed with the average grade of Mid-Continent crude.

An almost perfect balance between pipe line receipts and shipments of Hobbs crude was scored by the three carriers during July, although the lines of Atlantic Pipe Line Company and Shell Pipe Line Company did not begin handling oil from the field until about the time proration was initiated officially on July 10. According to figures released by the pipe line companies, they accepted 996,911 barrels, or a daily average of 32,161 barrels, during July, and transported from the field a total of 995,410 barrels, or an average of 32,110 barrels. Humble Pipe Line Company ran an average of 13,592 barrels, including common carrier oil handled prior to proration enforcement for Shell Petroleum Corporation and Texas Pacific Coal & Oil Company. Atlantic Pipe Line Company ranked second with a daily average of 12,266 barrels for the month, and this volume includes oil handled on a common carrier basis for Tidal Oil Company. Shell Pipe Line Company averaged 6301 barrels daily for the month.

Tank manufacturers and erectors have enjoyed little activity at Hobbs, except for lease flow tanks, as there are only six large steel tanks in service, and none building. The field has a gross storage capacity of about 600,000 barrels, including large and small tanks. The seven companies having storage tanks ranging from 5000 to 64,000 barrels capacity each reported 185,960 barrels of oil in storage on August 1, with 212,040 barrels of idle capacity. Atlantic Pipe Line Company has the largest storage capacity with three 55,000-barrel tanks, and also reported the most storage, since the company stored oil from June 16 until the completion of its trunk line on July 10. The latter company has 109,288 barrels of oil on hand. Humble Pipe Line Company reported 50,364 barrels of oil in storage on August 1. The two 10,000-barrel steel tanks credited to Tidal Refining Company are being erected in connection with its field gathering system, which will gather oil produced by Tidal Oil Company and deliver same to Atlantic Pipe Line Company for transportation to tidewater, thus avoiding the 10 cents per barrel gathering charge.

Storage facilities and crude stocks of all companies in the Hobbs field that have tanks of 5000 barrels, or greater, as of August 1, are listed below:

Company	No. Tanks	Size Tanks	Gross Capacity	Crude Stocks
Atlantic Pipe Line Company	3	55,000	165,000	109,288
Humble Pipe Line Company	2	64,000	128,000	50,364
Midwest Refining Company	1	55,000	55,000	3,050
Shell Pipe Line Company	3	5,000	15,000	10,275
Walker Oil Corporation	3	5,000	15,000	12,983
Tidal Refining Company	2	10,000	20,000	(*)
Tidal Oil Company	1	10,000	10,000	.....
Total	15		408,000	185,960

(*) Building.

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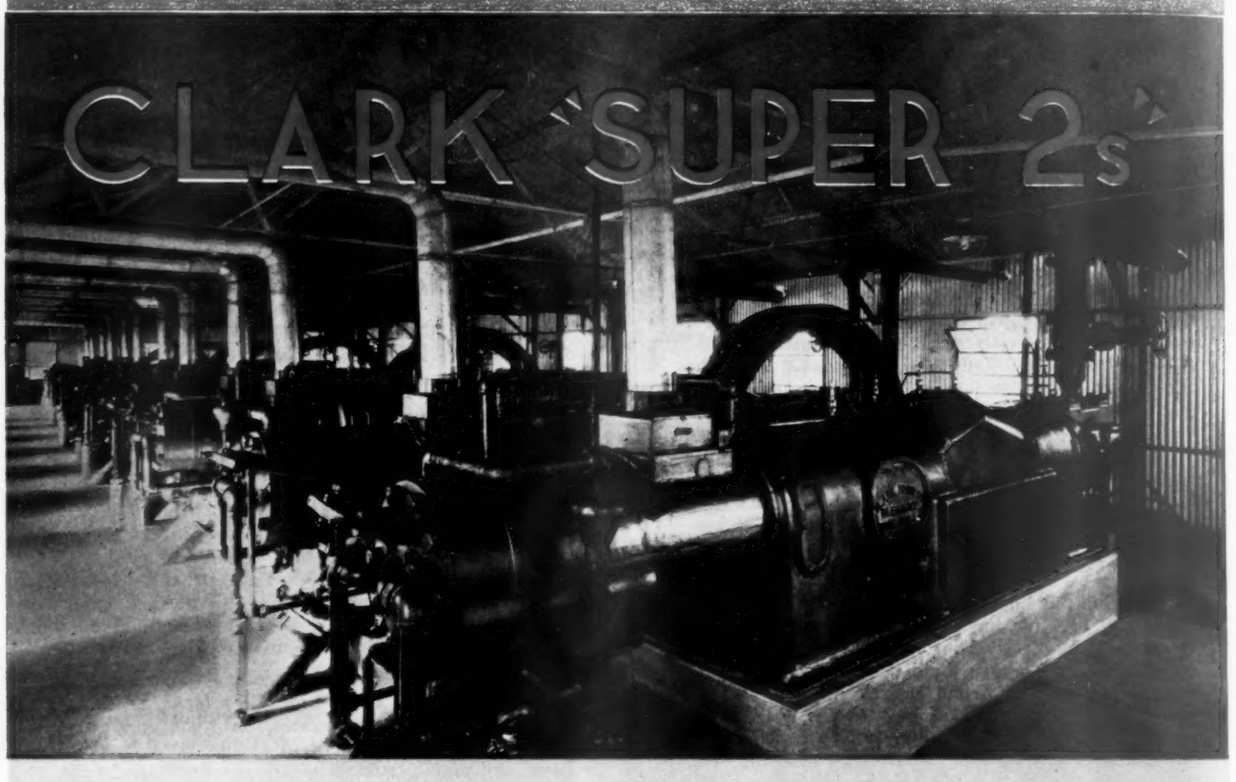

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CLARK

North and West Texas Field Notes

H. H. KING, *Staff Representative, Fort Worth, Texas*

Development of Unitized Van Area to Be Pushed

CORSICANA, Texas. — Development of the unitized acreage in the Van field is to be pushed with renewed vigor as indicated by the authorization of 20 new locations for immediate drilling. The drilling of these tests will yield considerable data as to the extent of the oil producing area, since the unit plan operating committee included a number of outpost tests in selecting the new group of locations. Including this new field work the 5800-acre unit block has 38 operations under way, and 88 completed wells. Fourteen of the current tests are drilling or in process of completion, while steel derricks and rigs are being assembled on eight other locations. All drilling is performed by rotary contractors, who have had 18 outfits in the field, but additional drilling equipment is to be moved in. Pure Oil Company is in charge of unit operations.

Fourteen leases in the unit block not heretofore tested for production in the Woodbine sand were given locations, although the majority of these tracts are definitely proven for production. This new activity will not have a disturbing influence in the general crude conservation program being applied to Texas fields, as the production quota for the Van unit has been limited to its present output of 25,000 barrels daily, with an extra allowance of 2500 barrels to be prorated among completed and drilling tests located outside the unitized area. This market allowance is to be prorated equitably among wells within and beyond the unit, and the Pure-Van Pipe Line Company is taking all oil produced on such a basis via its 10-inch carrier, which extends to the coast.

Humble Oil & Refining Company's L. A. Dowdle 1, located 1027 feet from south and 150 feet from west lines of 40-acre lease, Wm. Daniel Survey, is the furtherest removed location from production of the new group. This test is north by east of production, and will have considerable bearing as to whether the above company is to retain its present 7.75 per cent of the unit when the tentative readjustment of per cent takes place about May 1, 1932, in accordance with the terms of the unit plan. Humble Oil & Refining Company is now second largest percentage holder, with the bulk of its leases lying north, east and west of the Dowdle farm.

Efforts to widen the Van area to the southwest will be made through the drilling of Pure Oil Company's A. R. Humphreys 1, located in the northeast corner of 100-acre lease, A. McPhail Survey. The nearest producers to this outpost test proved to be small wells. The south end of the structure is to be tested by the drilling of a test in the northeast corner of Pure Oil Company's H. P. Tunnell 131½-acre lease, James Rose Survey, while the same company's A. D. Clark 16.8-acre lease, A. H. Wiley Survey, will try for an extension to the southeast, as location was made in the northwest part of the lease. On the east flank of the unit block, locations were made in the southwest corner of Pure Oil Company's W. E. Morris 79-acre lease, and in the northwest part of the same company's I. D. Miller 60-acre lease, both in John Walling Survey. The Texas Company gained a second location on its R. V. White 34.7-acre lease, M. Gross Survey. Sun Oil Company and Shell Petroleum Corporation have tests under way on their lease contribution to the pool, but neither drew locations during the past week.

East Flank Drilling Increases

While this increased field activity is taking place on the unit, drilling is also increasing on the east flank of the controlled area. Geo. Anderson, Fort Worth operator, and associates drilled to 1145 feet before exhausting their water supply in drilling the Sanger eight-acre vacancy strip. Tom Sharp has the drilling contract on this test. Hartt Petroleum Company, Dallas, is rigging up on its Swain Brothers 2.3-acre vacancy strip, and Broderick & Calvert are preparing to move in machinery on their M. F. Shirley 2.07-acre strip lease, which has one derrick up. E. L. Chapman, Fort Worth operator, has not progressed beyond the derrick stage on his Clarke lease, which is subject to litigation, and same condition prevails on Imperator Oil Corporation's G. W. Carter vacancy. However, the latter has reached a depth of 2630 feet on the G. J. Luther 3.01-acre vacancy strip in the northern part of the unitized area. Roy Jenkins, Dallas operator, and associates have cemented surface pipe on their M. E. Davis 66-acre lease, located in the northern part of the unitized area, but not included in the unit plan of development.

Pure Oil Company has installed a separate field organization to carry on its development work on the east side of the unit, and early this week was drilling below 750 feet on M. L. McMahon 1, with surface pipe cemented at 339 feet on Ella York 1. Humble Oil & Refining Company is starting west offsets to each of these tests.

Deepening of Pure Oil Company's W. T. Jarman 1, discovery well of the Van field, reveals that a spectacular completion would have marked the first strike in the area had the well been drilled originally into the main oil and gas section of the Woodbine sand. Jarman 1 was brought in on the morning of October 14, 1929, from sand at 2656-2710 feet, making 140 barrels of 35.4 gravity oil per hour for two hours, with an initial flow of 1790 barrels during first 24 hours, flowing through chokes most of the time. Production declined somewhat in later months, but was averaging about 1000 barrels daily when the flow was killed December 14 to set 6⅝-inch casing at 2491 feet, as the well was completed with nine-inch cemented at 2587 feet. The well was flowing natural and making its quota of the field allowance when deepening work started late in July. The hole as carried to 2947 feet, and a string of

seven-inch casing and 2½-inch tubing installed so as to equip the well on a standardized basis with all others operating in the unitized area.

Jarman 1 was swabbed in August 5 through tubing, and flowed 111 barrels oil per hour for three hours through 11/16-inch choke, then flowed 18 barrels per hour through 22/64-inch choke, and 7½ barrels per hour through 15/64-inch choke. On the second day the well made 266 barrels oil through 18/64-inch choke, with 425 pounds pressure on the casing and 375 pounds pressure on the tubing. No attempt has been made to obtain an open-flow gauge since deepening, as such procedure is not attempted by Pure Oil Company, sole operator in the unit area, on any completions in order that pressure on the field may be preserved. However, the above details reveal that a big well was awaiting the Pure Oil Company had its first try for production on the Van structure adequately penetrated the sand last October.

Well Depths Limited

Recent experience gained through the drilling of wells into water on the Van structure has resulted in the Pure Oil Company arbitrarily limiting the depths of wells to 2450 beet below sea level depth. This rule provides a margin of safety on bottom hole water. The discovery well was deepened to exactly 2450 feet below sea level depth, as it has a surface elevation of 497 feet.

The Texas Company's W. H. White 1, located in the northwest part of 20-acre lease and an east offset to the same company's big producer on the J. A. Bracken farm, was the only new completion credited to the Van unit within the past week. White 1 was drilled to 2931 feet, and completed August 5 making 303 barrels during first 24 hours, flowing through 2½-inch tubing and 11/16-inch choke during first three hours, then a smaller choke was applied.

The high point of the Woodbine sand horizon on the Van structure shifted to a new locality during the past week after the record had previously been held by Sun Oil Company's I. W. Thompson 4, which began showing for a producer at 2340-90 feet. Pure Oil Company's J. R. Shivers 1, located in the northeast corner of 46-acre lease and an outpost located in the northeast portion of the unitized area, has cemented seven-inch pipe at 2222 feet after coring heavily oil and gas saturated sand from this latter depth to 2330 feet. Thompson 4 cemented casing at 2340 feet, and was drilled to 2965 feet, resulting in an initial gauge of 107 barrels oil per hour through 11/16-inch choke. Shivers 1 has given difficulty to the drilling crew because of the well trying to blow out at 2330 feet, or at the base of the cement plug.

Gray County Completions Serve to Complicate Reduction Plans

Amarillo, Texas.—A heavy run of oil completions in Gray County during the past week creates a more difficult task for the committee that is charged with the responsibility of bringing about a sharp reduction of crude output in the Texas Panhandle district. Gray County added more than 10,000 barrels of new production through the completion of 11 wells during the seven-day period, and also scored a gain of 1625 barrels in average daily production through having produced at rate of 67,030 barrels daily. This county is slated to reduce its production to about 53,826 barrels in order to conform with the statewide proration plan.

The Finley-Brown area accounted for most of the heavy producers credited to Gray County, with Prairie Oil & Gas Company's Combs-Worley-Moody 2 topping the group for an initial output of 2480 barrels high gravity oil and about 25,000,000 cubic feet of gas at 2845-55 feet, while the No. 1 well on the same property swabbed 435 barrels initial at 2826-40 feet, with a total depth of 2857 feet. Both of these locations have three offsets completed, or drilling.

Humble Oil & Refining Company's Combs-Worley 6 made 2165 barrels oil and 13,000,000 cubic feet gas in initial flow from broken formation at 2731-2841 feet. The same company's Combs-Worley 4 swabbed 400 barrels initial at 2794-2865 feet. Phillips Petroleum Company's Combs-Worley-Foxx 3 made 1800 barrels oil and 10,000,000 cubic feet of gas at 2796-2810 feet, with a total depth of 2865 feet.

Flush production developed by Continental Oil Company's first test on the Carrie Wright 160-acre lease, section 13, proved to be short lived. This well blew in early last week and averaged 1850 barrels oil and 5,000,000 cubic feet of gas daily at 2785-2844 feet, but quit flowing August 10. Preparations are being made to apply gas lift to revive the flow of oil, as the gas has apparently exhausted.

Gasser Opens New Field for Andrews County

San Angelo.—Unsuccessful efforts were made early this week to kill the gas flow in Fuhrman Petroleum Corporation's wildcat test on the W. T. Ford ranch, Andrews County. This well is making about 26,000,000 cubic feet of dry sulphur gas from lime formation at 4062 to 4068 feet, and is expected to establish a new field for the county. The tools and drilling line was lost in the hole when the well blew out August 4, and the gas flow must be killed before any attempt can be made to fish for this junk.

The Ford gasser is about six miles south by west of the Ogden-King pool in Andrews County, and is believed to be on a lime high trend that extends from the McCamey district across Crane, Ector and Andrews Counties into New Mexico.

With few exceptions, heavy gas flows in upper sections of the lime formation on this trend have developed into oil areas, and operators are banking strongly on the Ford ranch test yielding an oil producer when deepened.

Fee lands of the University of Texas occupy a prominent position in the new Andrews County pool, and the bulk of these lands has not been leased, although Gulf Production Company and Southern Crude Oil Purchasing Company bought leases on a few tracts due south of the recent gas strike during an auction sale some months ago. All close-in acreage to the north, east and west of the gasser is off the market, so late entrants into the area have been seeking leases in the north end of Ector County. Broderick & Calvert sold a lease—spread in the latter area to Shell Petroleum Corporation, and are negotiating with other major companies for lease sales.

Deep Lime Disappointing

Majority of the wildcat failures credited to the West Texas district within the past week were carried to the deep lime horizon. The Hart Oil Corporation et al's test on the Edwards ranch, Lynn County, halted operations with a hole full of water at 5284 feet. In Terry County, the wildcat test drilled on the P. Carlisle ranch through a unit plan arrangement participated in by four separate interests, with the Penn Oil Company operating, has been abandoned at 5001 feet, with two strings tools in hole. This test was contracted to go to 5000 feet. Humble Oil & Refining Company's wildcat test on the Carswell ranch, Gaines County, has been ordered plugged after developing hole full sulphur water at 4835 feet. In northern Ector County, Penn Oil Company and Devonian Oil Company's Goodman 1 is a failure in lime at 4399 feet.

O. O. Owens, Tulsa operator, and associates are reported to be drilling in igneous rock below 6600 feet on their wildcat test, which is located on the H. Y. J. Mills land, Val Verde County. This test is drilling with open hole below the 2509-foot level, where 8¼-inch casing was landed to test a flow of gas that later exhausted. In Taylor County, J. B. Jameson and others' Webb 1 is making slow progress at 6044 feet, but is giving this section of the state its first deep test.

Gulf Coast and South Texas Fields

JACK LOGAN, *Staff Representative, Houston, Texas*

Pettus and Refugio Outlet Lines Construction to Start Soon

BEEVILLE, Texas.—Construction crews are concentrating here and shipments of pipe are being received for commencement of work on the new natural gas lines planned by the United Gas Company as ouetlets for Pettus and Refugio production. The expansion program laid out by the company calls for building of a 35-mile 18-inch trunk line from the Refugio field to Pettus, where the carrier will traverse the immense Ray ranch oil and gas property of Union Producing Company, east of the Pettus oil production, the latter concern being the property of owners of United Gas Company. From Pettus there will be built a 12-mile 16-inch extension to connect at a point between Runge and Kennedy with the gas trunk line put in operation last summer by the United Gas Company, extending southward from San Antonio and serving intervening towns. Another arm will extend westward from Pettus across Bee County to connect with the line built from the Laredo district to San Antonio by Magnolia Pipe Line Company but sold early this year to the United Gas Company interests. This expansion program of United Gas Company is expected to be consummated around November 1.

Tank car shipents still constitute the only market outlet for Pettus crude oil, and although there have been numerous rumors of probable oil lines no definite steps have been taken toward construction of any such line. In the meantime congestion of crude is becoming a more imposing threat, with the present production of about 6500 barrels daily representing output pinched considerably below the potential, and with numerous new producers in prospect, over 30 drilling oerations being under way.

The opening of a new pool 3½ miles southeast of Pettus production was an outstanding feature of activity in the district during the past week. The discovery well of the new producing area is E. S. Price et al's Laura Weiss 1, which although not yet completed, showed up favorably on drill stem test as a potential gas well. In an eight-minute test it showed an estimated daily capacity of 15,000,000 cubic feet of gas, with 750 pounds working pressure. The sand which was tested was logged at 4407-14 feet. Casing will be set just above the sand. Along with the gas the well was reported yielding some high gravity oil, or gasoline, like various other wet gas wells that have been completed at Pettus. The production is coming from the upper portion of the Claiborne, it is said. Elevation at the derrick floor is 346 feet. Top of the Jackson was reported at 2910 feet, and top of the Claiborne at 4228 feet. Location of this well is 200 feet out of the northwest corner of the B. & B. Survey, Bee County.

A 2½-mile northeast extension of the discovery oil field at Pettus is in prospect, Union Producing Company having encountered an oil sand at 4032-40 feet in Ray 10. On a drill stem test the well made a mediocre showing, testing 20 feet of oil in five minutes together with about 275 feet of sand. Six and five-eighths-inch casing has been cemented above the sand. This well is 3000 feet northwest of Union Producing Company's old well, Ray 3, which, although completed as a gas well, yielded a little oil, but not in commercial quantity, furnishing the first evidence of oil in the area. Ray 10 is in the southwest corner of the George Neal Survey, in the extreme east edge of Bee County, being 150 feet out of the southwest corner of Block 6, Subdivision B, Ray ranch. Derrick floor elevation of this well is 370 feet.

In addition to the above two wells, there are two others in the Pettus area which are down to the prospective producing horizon. Glasscock Brothers topped the sand at 3869 feet and drilled in it to 3879 feet in No. 1, Block 24, Pettus townsite, and has cemented casing at 3862 feet. Humble Oil & Refining Company's McKinney 5, immediately south of the southeast corner of the Pettus townsite, and a direct south offset to Houston Oil Company's No. 1, Block 36, has set liner after finding the oil sand at 3893-3903 feet, and is estimated as a 500-barrel well. Elevation at the derrick floor is 409 feet.

Union Producing Company's Ray 15, east offset to Houston Oil Company's above mentioned well in Block 36, Beasley 1, is producing 406 barrels of oil daily on a three-eighths-inch choke. Top of the sand is at 3911 feet; total depth is 3926 feet; and 6⅝-inch casing is cemented at 3910 feet. The same company's Ray 16, direct offset to Glasscock Brothers' well in Block 41, is making about 20,000,000 feet of gas together with some gasoline from sand at 3843-52 feet. Like the Glasscock well it is expected to increase its flow of high-gravity oil when allowed to flow for a few days. Union Producing Company is moving on derricks and rigs to locations offsetting townsite lots on the east. These locations are Ray 18, 19, 20, 21 and 22.

Cosden Oil Company's McKinney 3 in the Cosden pool three miles west of the main Pettus pool, has drilled out cement plug with sand at 3651-55 feet and is being completed.

Kimball Pool Disappointing

The Kimball pool, 7½ miles west of the main Pettus pool, is apparently due to be a disappointment, the discovery well, Grayburg Oil Company's Kimball 1, never having established itself as a consistent commercial producer, and two later tests having failed to develop production although drilled below the expected productive horizon. Grayburg Oil Company's Kimball 1 came in flowing 300 barrels 36.5 gravity oil daily at 3558-68 feet, surface elevation being 383 feet. Kimball 2, located 1800 feet southeast of No. 1, topped the sand at 3576 feet, unusually low, and showed no oil or gas, but a heavy saturation of salt. Elevation is 400 feet at the derrick floor. The well was last reported drilling shale at 3730 feet. The same company's Copeland 1, southwest of the discovery well, is running high, having found the top of the Jackson around 2700 feet, with elevation of the derrick floor 437 feet. Arkansas Natural Gas Company's Billingsley 1, northeast of Kimball 1, has been abandoned in salt water sand at 3863 feet.

Nichols et al's Hicks 1 in the pool near Normanna attempted to make a drill stem test at 4312 feet, but the tester failed to hold.

Shallower Wells at Barbers Hill Continue High Production

Houston.—Continued high production from Mills Bennett Production Company's Fisher "H" lease on the southeast side of Barbers Hill field is a noteworthy feature in current developments on that salt dome. The company has two producers on that lease, No. 1 and No. 2, producing from a shallower sand than the usual pay horizon in that immediate area,

and they are holding up remarkably well. No. 2 came in over three weeks ago, yielding 1850 barrels daily at total depth of 4710 feet, after drilling through some salt, and it later increased as high as 2500 barrels daily on large choke, but has been pinched back somewhat again. Although No. 1 is still a flowing well, it is considerably older, and has declined to about 600 barrels daily.

Recent completions at Barbers Hill include Yount-Lee Oil Company's Phillips 4 and Chambers County Agricultural Association 11. The former was swabbed in at the rate of 450 barrels daily, yielding 27 gravity pipe line oil which tests 86 degrees temperature at the well. The other recent well came in for initial production of 240 barrels daily at 4090 feet.

Humphreys Corporation's Kirby A-8 at Barbers Hill, discovery well of deep production on the northwest flank, is still flowing around 850 barrels daily. That well came in January 4, 1930, and it has produced around 700,000 barrels since then.

Humphreys Corporation's Kirby H-2, a former producer being drilled deeper, is an interesting deep test on the east side of the dome. Early this week the bit had gone 13 feet into a clean sand to total depth of 6617 feet.

Sun Oil Company's O. K. Winfree 1, virtual wildcat on the west side of Barbers Hill dome, midway between Humphreys Corporation's Kirby A-8 and Yount-Lee Oil Company's Zadie Fisher 1, was drilling lime rock at 5185 feet early this week. This test drilled through 850 feet of cap rock and then went back into sand and shale instead of salt, as might have been expected.

Raccoon Bend Field Extender Across Brazos Into Waller County

Houston.—Raccoon Bend field has been extended eastward across the Brazos River into Waller County through completion by Humble Oil & Refining Company and Valley Oil Corporation of R. Hardy B-2, which came in flowing 391 barrels daily at total depth of 3202 feet. Heretofore the most easterly producer of the field was the above interests' Duncan State 1, located in the Brazos River bed, all other wells being west of the river in Austin County.

The new producer, Hardy B-2, is 1600 feet north and 300 feet west of Hardy B-1, which was abandoned at 3751 feet after the derrick was wrecked. Hardy B-1, in turn, was 1200 feet due east of the producer in the river, being 900 feet from the east and 250 feet from the south line of Section 50, R. Hardy Subdivision, J. E. Groce Two Leagues, Waller County. Thus the new well is approximately 900 feet east and 1600 feet north of the river-bed producer.

Raccoon Bend field comprises an area about three miles wide and five miles long, and is located along the edge of the Gulf Coastal plain slightly beyond the regular salt dome fields. It is being developed altogether by the two companies mentioned above, and is producing around 12,000 barrels daily.

Second Gasser Completed in Western Nueces County

Corpus Christi, Texas.—High potential gas production was indicated late last week in Lawrence 2 of R. A. Thompson and G. C. Richardson in western Nueces County, seven miles west of Corpus Christi. The gas sand was encountered at 1641-50 feet, and on a drill stem test it gave promise of being a large gas producer. Following the test it was announced that casing would be set over the sand immediately.

The well is 1800 feet southwest of the same interests' Lawrence 1, which blew in July 3, 1930, with tremendous pressure from 1752 feet, wrecking the derrick, catching fire and forming a 100-foot crater before choking itself off. The second well was put down with the same gas sand as the objective.

This is the second large gas well drilled within a few miles west of Corpus Christi during the past month. W. L. Pearson et al's Donigan 1, which came in with an oil showing early in July had a gas pressure of 1600 pounds at 4079 feet.

Houston Oil Company has made location for a test on the Rand Morgan tract and 350 feet in a direct line east of Lawrence 2. That company has abandoned its Brooks 1, three miles southeast of Agua Dulce, as a dry hole at 5478 feet and is moving off.

Saxet Oil Company is rigging up a steel derrick on Dunn 6, five miles west of Corpus Christi. The well was shut down at 4180 feet while the wooden derrick then in use was torn down and a steel one substituted in anticipation of a deep test.

Independent Oil & Gas Company's proposed deep test, Baldwin 1, three miles southwest of Corpus Christi, has cemented 12½-inch casing at 1190 feet.

J. L. Kennedy, independent operator of San Antonio, has made location for a proposed deep test well in the northern part of San Patricio County near Mathis and in the general area adjacent to the Houston Oil Company's recent oil strike in southern Live Oak County. This is the first location to be made in that area following Houston Oil Company's discovery of a promising oil sand in Ross Boothe 1, in the edge of the Lucas gas field, Live Oak County. Kenedy expects to drill to a maximum depth of 5750 feet.

S. R. C. Oil Company has made a deal calling for drilling of three wildcat tests on the Duval County Ranch Company's properties in northwestern Duval County. The first location has been made in Survey 280 of Duval County and will be started drilling as soon as a water well can be completed. The tract of land comprises 10,000 acres.

Purchases Half Interest

The above oil company, which is a large operator in the Muckleroy field of Zapata County, has purchased half interest of Sam Evans, contracting driller, and associates in a large block of acreage in the east part of the Muckleroy field for reported consideration of $100,000 cash. The acreage includes 160 acres in Survey 285; 560 acres in Survey 62; all of Surveys 59 and 60; 560 acres in Survey 61; and 160 acres in Survey 19, all in Zapata County. There is a gas well in Survey 285, where part of the acreage is located.

William H. Barnhart of Laredo is starting a wildcat test in Jim Hogg County, nine miles south of Hebbronville on the McCampbell ranch in Las Vivoricitas grant, on Block 33 of the Barnhart subdivision of a 1000-acre tract. Contract for drilling the well was awarded to Trussell & Cezeaux. A well drilled four years ago on this same ranch by Buffum & Davenport was reported to have 20 feet of sand showing oil at 1800 feet.

Leases on 12 tracts of submerged land in Nueces County were awarded last week by the commissioner of the general land office at Austin. The following awards were made in the Nueces Bay area; Survey 684, L. A. Casey, San Antonio, $120; Survey 692, Empire Gas & Fuel Company, Bartlesville, Oklahoma, $630; Survey 694, Saxet Gas Company, Houston, $217.50; Survey 706, H. J. Porter, San Antonio, $125; Survey 710, L. A. Casey, $80; Survey 723, H. J. Porter, $112; Survey 745, Houston Oil Company of Texas and Shell Petroleum Corporation, Houston, $6600; Survey 746, Southern Crude Oil Purchasing Company, Fort Worth, $7473. Four tracts in the Cayo del Oso area were awarded as follows: Tract A, F. V. Arnim, Corpus Christi, $345; tract B, F. V. Arnim, $301; tract C, F. V. Arnim, $204; tract D, H. F. Kreis, Corpus Christi, $301.

Humble Adds Two On West Side

Houston.—Sun Oil Company and Rio Bravo Oil Company early this week finished one well each on the west side of Humble dome in the south part of the Humble townsite. The former's Bender 10 came in flowing 1500 barrels daily of pipe line oil at 4430 feet, registering pressure of 140 pounds, the production being 33.4 gravity crude. The well completed by Rio Bravo Oil Company was Fee 4, which began flowing 600 barrels daily from 3938 feet, with pressure of 100 pounds.

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OKLAHOMA CITY — OKLAHOMA

Darst Creek Quota Is Set At 42,211 Barrels Daily

SEGUIN, Texas.—Total production quota of the Darst Creek field, Guadalupe County, is 42,211 barrels daily under the newly instituted conservation program, details of which were completed early this week.

The new schedule of allowances by companies is based on actual 24-hour gauges of wells, which were completed Sunday, August 10. Contrary to general opinion and prophecies, the field's potential as determined by the 24-hour gauges is not radically lower than the potential shown through the last one-hour gauges, taken July 1. The new potential of the field, not including one well owned by Jake Jarmon, is 156,855 barrels daily. This total represents the gauged potential of a total of approximately 165 wells. On July 1, or about six weeks earlier, based on the brief gauges, the field had shown total potential of 191,063 barrels daily from 152 wells.

The new production quota was arrived at by determining the potentials of all the wells and then making calculations restricting the output of all producers proportionately to the extent that Louisiana Oil Refining Corporation be allowed daily production of 4500 barrels, in accordance with terms of the contract under which it purchased its Darst Creek properties. With the potential of the field aggregating 156,855 barrels, the quota of 42,211 barrels daily agreed upon for actual production represents approximately 27 per cent of the potential.

The daily production outlet provided for the various companies in the field under the current program is as follows:

Company—	Daily Prod. (Bbls.)
Abercrombie & Harrison	1750
Cranfill-Reynolds Company	35
Empire Gas & Fuel Company	882
Gulf Production Company	6922
Humble Oil & Refining Company	8265
Louisiana Oil Refining Corporation	4500
Magnolia Petroleum Company	4029
Penn Oil Company	80
Stroube & Stroube	110
Sun Oil Company	3231
The Texas Company	11,963
Trinity Drillers	391
Dr. F. L. Thompson	53
Total	42,211

Schedule Retroactive to August 2

A feature of the accepted conservation program is the fact that the above schedule is retroactive, being effectjve as of seven o'clock on the morning of August 2.

In taking gauges of the Darst Creek wells the field was divided into several zones or sections, and the various zones were handled at different times, that procedure being made to enable the pipe line companies to take care of the large quantities of oil recovered through the gauging.

The 20-acre units used in prorating field formerly under the voluntary operators' plan have been dispensed with, and the allowances of the various companies as shown above were determined 100 per cent by the potentials of their wells.

H. H. Fitzpatrick, who has served as umpire at Darst Creek from the beginning of proration there the first of this year, has continued in charge of the new conservation program, and although the restoration of curtailment has been brought about largely through voluntary efforts of operators in the field, their action has been approved by the state railroad commission.

There is practically no drilling in progress now at Darst Creek, following recent completion of four wells as result of the drilling of a new well by L. C. Turman on a narrow strip; and in view of the concerted action being taken by operators throughout Texas to bring about a decrease in production, additional drilling in the field is considered as unlikely in the near future. The new well put down by Turman, Guadalupe County 1, located on an abandoned road, has lately been sold to Humble Oil & Refining Company, as stated in detail below. It came in yielding 850 barrels, 20 per cent water, at 2575 feet. Empire Gas & Fuel Company's Dowdy 5 came in for estimated initial production of 700 barrels at 2573 feet. Gulf Production Company's Dix-McKean 4-A began pumping and flowing 1320 barrels daily at 2527 feet. Humble Oil & Refining Company's Baker 7 came in for 950 barrels daily at 2570 feet.

Water intrusion upon the Darst Creek field has been greatly increased since the operators broke ranks in abiding by proration rules and produced wells to the maximum capacity of transportation and storage facilities during the 10-day period ending August 1. Water had appeared in the majority of the wells prior to the general break-down of proration, and the general release of pressure previously held on wells flowing from the Edwards limestone has noticeably aggravated the sulphur water situation. The porous nature of the oil bearing formation readily permitted the spread of water when the operators were withdrawing between 90,000 and 95,000 barrels of oil daily during the last few days of unrestricted production.

Flowing Wells Suffer

This comparatively brief period of wide open production is exacting a toll of the flowing wells, as the water level rose in sections of the field to such an extent that long stroke pumps must be installed to lift sufficient fluid to obtain commercial oil production. Besides hurrying the field along to a pumping stage, the cost of conditioning the oil for pipe lines is naturally increased because of the increased percentage of cut oil. Most operators are using electric dehydrators for separating their fluid production, and a number of such plants were hurriedly erected during the wide-open production period in order to condition the oil to meet pipe line requirements.

Reinstatement of proration in the Darst Creek field began taking place about 9 p. m. August 1, and much credit is due F. C. Sealey, assistant manager Gulf Coast division of The Texas Company and chairman of the proration committee. Sealey put forth much effort to halt the break-down of proration when the plan began crumbling through one group of operators having obtained a temporary court order that restrained the Texas Railroad Commission from enforcing its proration rules after the above operators had been exposed to alleged unfair drainage.

Only six companies took part in the disregard of proration, as each had their private transportation and storage facilities, while the remaining eight operators had to be

content with whatever market outlet the above offered. The following operators were fortified with pipe line and storage facilities, and were in the midst of the race for flush production: Humble Oil & Refining Company, Gulf Production Company, The Texas Company, Magnolia Petroleum Company, Louisiana Oil Refining Corporation and J. S. Abercrombie-Harrison Oil Company. The field gathering systems of the above group were badly congested with oil, and some of the companies were still running surplus production from their properties a week after the restoration of order in the field.

Proration is now on a sounder basis in the Darst Creek area than at any time since it was adopted on January 1, 1930. Louisiana Oil Refining Corporation is to be allowed to produce its demanded quota of 4500 barrels daily as long as its properties will stand up to the potential as now given under the new 24-hour tests, thus eliminating its grievances. This company's failure to adhere to proration quota in the past is alleged to have been the principal reason for the collapse of the Railroad Commission's enforcement rules. Louisiana Oil Refining Corporation has a six-inch line, extending from its Darst Creek properties to a tank car rack at Sullivan, and delivers the crude via tank cars from the latter point to its refinery at Shreveport.

Proration Unanimous Now

Proration in the Darst Creek field became unanimous for the first time late last week when Luther C. Turman, Fort Worth operator, sold his Guadalupe County road strip, with two producing wells, to Humble Oil & Refining Company for a reported consideration of $150,000 to $200,000 and agreed to accept proration of his two pumping wells on the Rand Miller tracts. Turman made contract to sell his oil as produced to Grayburg Oil Company prior to the application of proration in the field, and never became a party to proration through having this market outlet. The strip lease adjoins leases of Humble Oil & Refining Company, and the latter company had been charged by Turman with damaging wells on the strip through water encroachment, thus resulting in Turman filing suit for heavy property damages. This suit has been dissolved, and also one that Turman had against the Texas Railroad Commission, which was enjoined from interfering with Turman drilling a second well on the small tract. Guadalupe County receives one-eighth royalty from the strip lease, while other parties own an outstanding 3/64 interest that was not acquired by Humble Oil & Refining Company in taking over the tract. The two wells on the strip lease are making about 1000 barrels daily, with a high percentage of water, and total oil recovery is placed at 112,000 barrels, according to Turman.

No legal action has been taken by Jake Jarmon, Claude Witherspoon and others for damages sustained when a gang of men tore down a derrick that had been erected by the former on an alleged strip of land near the Turman strip on the night of July 25. A watchman on the derrick was defied by the invaders. It is understood that the company responsible for the destruction of the derrick has made a settlement with the above operators.

Cosden Capital Increase Planned

New York City.—Stockholders of Cosden Oil Company, which has producing properties in Oklahoma and Texas, with a large refining capacity in the latter state, will meet here August 14 to vote on a proposed increase in capital stock to permit the company's invasion of the refining and marketing business on the Atlantic Coast. It is proposed to increase the common stock issue from 300,000 to 500,000 shares, non par, and the preferred stock from 15,000,000 to $10,000,000. The latter has a par value of $100.00. J. S. Cosden, president of the company, is now in New York in connection with the contemplated expansion program. It is understood that a refinery in New Jersey may be leased, or purchased, while the crude supply would be obtained by tanker.

LOUISIANA-ARKANSAS

Fourth Producer for Urbana District

Shreveport.—The Urbana district of Union County, Arkansas, the deepest producing field in that state where there are now three producing wells, appears to have added its fourth producer which gives promise of completion practically free of water. Marine Oil Company Monday, August 11, swabbed and bailed down 2600 feet in Thompson A-4, SW NE Section 10-18-13 and fluid rose 1500 feet in an hour and 40 minutes. The test also showed much gas and bailing and swabbing was still under way late August 12. There was little or no trace of water, which showed in the other three producers. The well had tested 5,000,000 cubic feet of dry gas through drill stem before casing was set, from 3548 to 3551 feet, total depth being 3554 feet. Six and five-eighths-inch casing was set at 3548 feet.

The same company's Thompson A-3, Section 10-18-13, the discovery well of the district, is now flowing 5500 barrels of fluid daily, 85 per cent of which is water and basic sediment. The company's Winn Estate B-3 in the same section is pumping 1000 barrels of fluid daily, 96 per cent salt water. Simms Oil Company's M. H. Simmons A-1, also in that section is pumping and flowing 1200 barrels of fluid daily, 95 per cent basic sediment and water.

R. W. Norton's Hill 1, NW NE Section 33-23-16, northwest Caddo Parish, Louisiana, completed in the Trinity at at 5506 feet, gauging at first 7,812,000 cubic feet and a spray of about 15 barrels daily of almost pure gasoline, has increased its gas yield to 11,242,000 cubic feet. The gasoline runs 819 gallons per 1,000,000 cubic feet. The rock pressure was not obtained. This production, the deepest in North Louisiana, was obtained in 16 feet of streaked lime and sand. The well is now shut in by orders of the state conservation commission.

Meanwhile negotiations are reported under way between Norton and United Gas Company, a subsidiary of Louisiana Gas & Fuel Company, Palmer Corporation, for transfer of Norton's 50,000-acre block for development. If the transfer is made Norton is to be in charge of subsequent drilling of the tract, all of which will be for Trinity production.

Bienville Lease Sold

Another sale consummated during the week was between Triangle Drilling Company and Ruston Drilling Company as purchasers and Nichols and associates as assignors of an undivided half interest in McDermott 1, Section 28-18-6w, a wildcat in Bienville Parish, which showed oil in a drill stem test at 2358 feet, and the surrounding 5000-acre block. The purchase price was $5000 cash and $10,000 in addition for care for outstanding obligations. The purchasers also agree to pay $1000 for each 40 acres on which oil is found at the rate of 10 cents per barrel on oil produced, the Nichols group is also to have a half interest in additional acreage secured without cost to them. If no commercial production is found at the present level in the present test the new part owners are to drill to 3500 feet.

W. A. Kirk, vice president of United States Refining Company and secretary of Exeter Oil Company, is no longer actively connected with these organizations, having resigned to conduct a marketing and oil brokerage business at Long Beach, California.

News From California Fields

BRAD MILLS, *Staff Representative, Los Angeles, California*

Long Beach Field Activity is Greatest Since Three Years Ago

Long Beach, Calif.—With the Long Beach field again firmly established at the head of the list of active California districts, efforts of other critical fields to bloom forth and dislodge this great producing area seem to have fallen considerably short of their objective. With about 125 drilling wells, the revival of activity has carried field work to the highest level it has attained since the decline of the boom started three years ago.

Completion of occasional wells with large initial flows have stimulated operators to develop their leases in the little drilled areas which were regarded as doubtful in the deep zones or which were neglected because of lenient lease requirements. One large well has been responsible for from on to six immediate offsets in the south slope and Los Cerritos districts, while a tapering off of activity has been noted in the southwest sector where a small boom was started a year ago. The 6500-7000-foot level seems to be best for outstanding completions of the present crop, the extremely deep layers having been cast aside for the more nominal depths.

Completions in the Los Cerritos district have been small and predictions that this part of the field would parallel the experience gained in the upper zone seem to have some foundation. The rush to drill in this northwest extension was led by small operators but many kinds of companies participated in the activity. New locations are almost keeping pace with completions, the reworking of wells adding enough to the active list to prevent a shrinkage in the total.

Number of Drilling Wells at Santa Fe Springs Down to 12

Los Angeles.—Despite the benefits that will ultimately accrue to the oil industry through a decrease in field operations, there is a touch of tragedy in the slump in drilling at Santa Fe Springs. Dropping from 225 active tests to a mere 12 drilling wells since the first of the year has lowered the potential sharply and rendered the field less potent in the critical list, but the decline has been accompanied by failure to complete many wells as profitable producers and reduction of field forces. Deep zone drilling has reached such a low stage that the few wells still struggling along around 8000 feet are not regarded as important from any angle.

Most of the recent completions have been wells plugged back from the deep zones to obtain whatever production available in the Meyer and O'Connell zones. Many of the wells started late in the campaign for production in the Clarke series are being completed in the shallower sands for more than one reason.

The natural ability of the Meyer zone to produce consistently and several years of repressuring are viewed with favor by operators who are not inclined to take chances around 8000 feet. Reworking of wells constitutes the bulk of activity, plugging back of producers that have failed for various reasons accounting for about two-thirds of the work. Average initial production of wells completed in the Meyer zone is about 250 barrels of clean oil. The greater ease of pumping producers in the sand is a distinct advantage over the risk of obtaining a larger production in the lower zones.

Failure to complete a single well during a few of the past weeks shows the speed with which a field may pass from the critical to the settled stage. About 100 wells are producing in the shallow zones, the average yield not exceeding 13,000 barrels. These shallow sands could produce more than twice this amount with ease. Repressuring of the Meyer zone has been an expensive process, but since gas which otherwise would be wasted was used the procedure was a wise policy. Wells on leases which were the center of repressuring operations are making the best showing, but offsets have also been benefited by the injection. Field production is running around 111,000 barrels and is still higher than the allowable. The potential has been placed at 195,000 barrels, but engineers believe this figure much too high. Releasing of shut-in production as leases decline is being practiced, the excesses being caused chiefly by wide-open flow of a few operators not holding to the curtailment plan. Talk of development of the 9000-foot zone is finding a very small following and state production will have to drop far below the present level before operators consider a rush to such levels. The poor showing of the few wells drilled to the lower Hathaway zone was enough to discourage further activity, although leases near the center of the field should yield some oil from a point below 8500 feet.

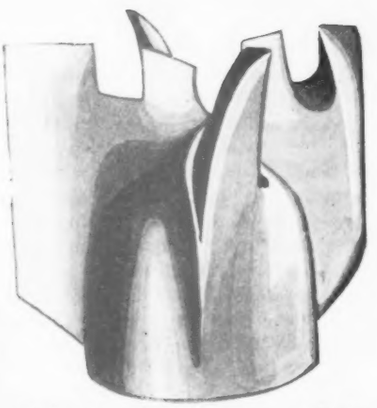
Playa Del Rey Status Unchanged; Work of Development Continues

Los Angeles.—The absence of sensational developments in the Playa del Rey field and lack of uniformity in completions in both the upper and lower zones have left the status of the district virtually unchanged. Mixed opinions concerning the importance of the area are of little value at this stage of development and only additional drilling will disclose the value of the field and the trend of production.

The shallow zone is viewed with more favor, following the tentative completion of Union Oil Company's Del Rey 1, which came in under mechanical difficulties with a flow of 800 barrels from 4015 feet. Efforts to complete this well at a shallower depth were unsuccessful and its action from a point deeper in the sand is entirely satisfactory. Elmer Oil Company's No. 1, which started flowing at a 3500-barrel rate is producing 3000 barrels of clean oil from the deep zone. Edge wells trying for production in the deep zone are finding the producing sand much deeper than in Ohio Oil Company's discovery well, but the intermediate acreage will be virtually proven by their completion as commercial wells. Ohio Oil Company is completing Del Rey 2 at 6678 feet and Dickenson 1 at 6505 feet, both wells being outposts of importance. Enough oil sand has been cored in both to insure commercial production if water shutoffs can be secured.

The field potential is not running up as fast as anticipated and the area still has a doubtful outlook to some geologists. The inside leases are promising, but many of the edge tracts are questionable. Thinning out of the deep zone near the ocean in the southeast sector indicates that the axis will run somewhat north of the line originally set. Lack of uniformity may eventually be traced to a production trend not yet established.

Active projects have increased to 57, of which 37 are drill-



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ing wells. New locations are being made at a faster pace than completions are recorded, insuring a drilling campaign of good proportions. Small leases and small operators, two factors which are essential in carrying out townlot booms, are present at Venice, and despite over-production elsewhere, seem determined to develop their leases. The presence of sulphur in the crude and the low gravity of the oil are not sufficient to check developments at this time. The spotted appearance of the field, small producers in the upper zone, possibility of small wells on very small leases and other unfavorable signs do not outweigh the eagerness to develop the field. Granting of permits to drill in areas now restricted would increase operations and spread activity into the city of Venice (Los Angeles). Pressure to obtain tideland permits for drilling out in the ocean is also being brought to bear, but there is some doubt whether wells of this nature will be drilled.

Tideland Well at Santa Barbara is Largest in California

Santa Barbara, Calif.—Completion of Pacific Western Oil Company's Permit 92-5 with a high flow of 11,200 barrels during one day of a five-day test, was an outstanding development of the week and gave this field the largest producer in the state by a wide margin. Located nearly one-fourth of a mile from the mean high tide line, this Pacific Ocean producer averaged 9830 barrels over a five-day open flow test to establish a potential. Initial production of the well was about 4000 barrels, but the flow increased steadily to reach a very high average.

Pier activity in this field has doubled production and opened up ocean leases to intensive development. Less than half of the field is located inside the mean high line. Permit 92-5 was completed at 3475 feet, with a string of eight-inch casing cemented at 3180 feet.

Barnsdall Oil Company and Rio Grande Oil Company continue their unbroken record by completing Permit 88-3 as a 9000-barrel producer at 3442 feet. This well was also opened wide to establish the best possible potential. Such a pair of wells further emphasizes the importance of this unusual field and seems to cheapen the theory that production will soon stage a nose dive from the present level.

Allowing the wells to flow unrestrained to establish a high potential is regarded as a dangerous practice, however, and reduces the gas pressure rapidly. Pacific Western Oil Company has announced that it will prospect for oil to the limit of its tideland permit, a distance of nearly 4000 feet into the Pacific Ocean.

Goleta Deep Test is Abandoned

Santa Barbara, California.—Abandonment of Ring Oil Company's More 1 in the Goleta district at 5570 feet was a blow to the belief that oil will be found in commercial quantities in this area and removes one of the most important deep tests along the coast line near Santa Barbara. General Petroleum Corporation is active in the district and has developed a heavy gas flow on its More lease.

Wildcatting Around Elwood Continues

Santa Barbara, Calif.—Despite abandonment of several wildcat tests in Santa Barbara County, activity of this nature has not shown the decline recorded in proven fields. Failure to find a productive structure near the Elwood field has reduced the number of active tests which were started with the hope of opening up a second producing area from about the same formation.

Bolsa Chica Oil Corporation is drilling at 1100 feet in Augur 191-1, a tideland well located outside the mean high tide line and destined for a sand which should be found around 4000 feet. This test is off Campbell's Point and the structure can be reached only from this location. Concentration of wildcatting has been in the vicinity of Elwood, but a spreading out is being observed.

Complete 300-Barrel Well at Potrero

Los Angeles.—Richfield Oil Company has completed Coffin 1 with an initial production of 300 barrels, the yield of this deep Potrero test not being as important as a successful completion of a commercial well at a new level. The well was completed at 6258 feet and opens up an entirely new producing zone, even if not an important one. The oil was 40 gravity and showed a small cut. The Potrero field still remains a puzzle, after nearly three years of spasmodic drilling in various parts of the district. Present activity is centering in the Inglewood townlot section, but the broken formations from which production has been obtained do not contribute to additional development. A few good wells have been completed but production has dropped sharply in every case, and both sand and water have combined to make drilling hazardous.

Purisima Anticline Well Interests

Santa Barbara, California.—Extension two weeks ago of the Purisima anticline by Vaqueros-Major Oil Company has increased interest in development on and near several structures in Santa Barbara, a production of 575 barrels from the discovery well being regarded as unusual for fractured brown shale, the formation from which the well is pumping. A second well is being drilled as an offset. Completed at a depth of 2997 feet, such a production of 22 gravity oil at this level is profitable.

Anticipate Activity at North Beldridge

Taft, California.—Announcement that Union Oil Company will drill a test in the North Belridge field, where the Temblor sand was recently found to be productive at least on a small scale, may be the forerunner of considerable activity in this district. About a year ago discovery of both gas and oil in the Temblor sand created wide interest in a large area in this part of the San Joaquin Valley and indicated deeper production in such fields as Lost Hills to the northeast. Subsequent test of Belridge Oil Company's No. 15 at 5086 feet resulted in only a small production of light oil and gas but belief that only the top of the formation was tested is still held. This well is being drilled deeper into the sand and is still regarded as one of the most important wells in the state. Kettleman Hills to the north is producing from the Temblor sand and any connection which may be made with this field is rightfully important. General Petroleum Corporation will drill a deep test at South Belridge and a large part of this flat district will be drilled during the next year.

Porterville is Scene of Boom Activity

Bakersfield, California.—Activity in the vicinity of Porterville, where Terra Bella Oil Company recently completed a small producer to open up a new field, is rapidly increasing, but there is still some doubt concerning the value of the discovery. The original producer is pumping from 918 feet, making about 25 barrels of oil and a similar amount of water. Eight wells have been started and the new district has been transformed into a minature boom area.

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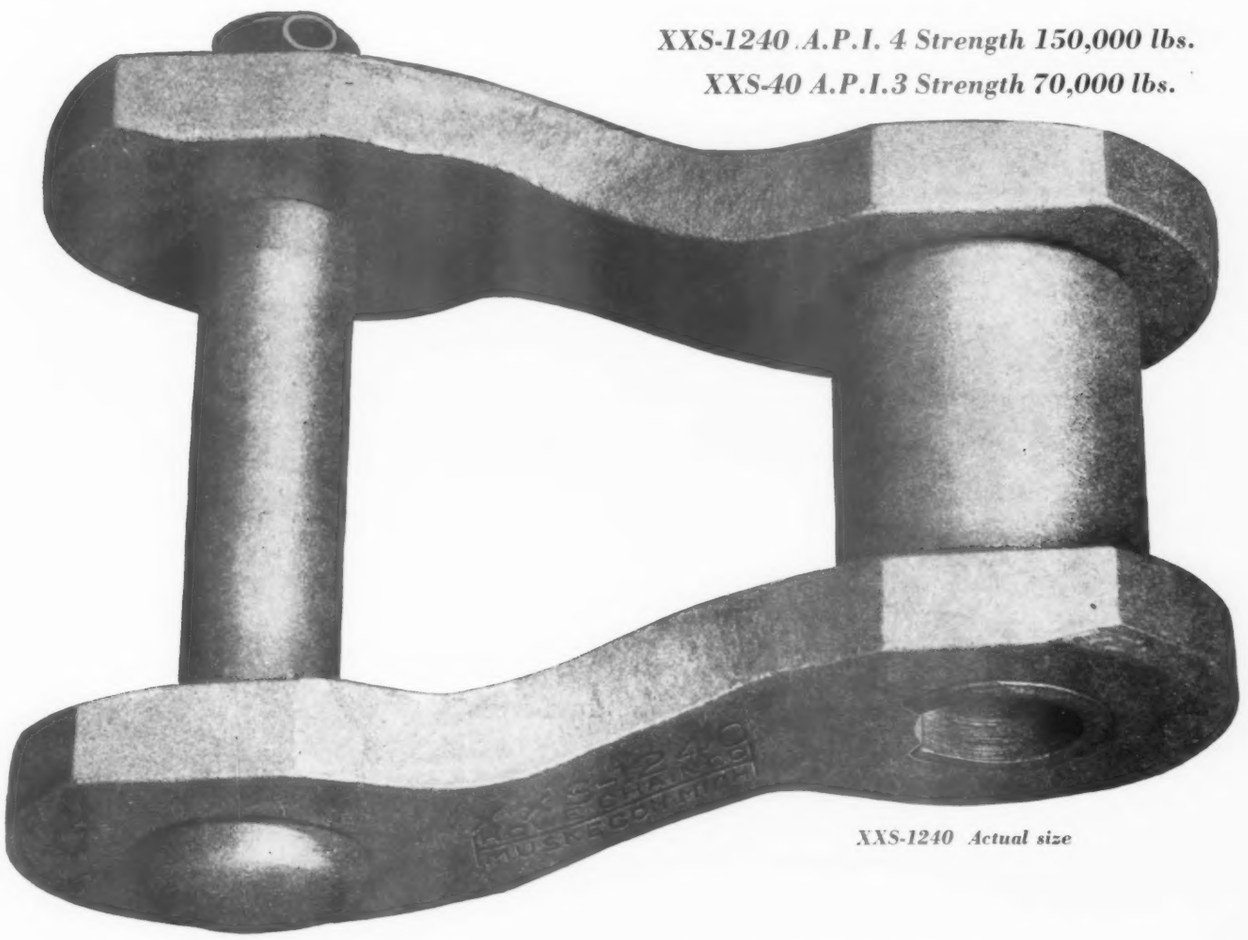

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WORLD PETROLEUM IN REVIEW

(Continued from page 32)

of the Moniteur du Petrole Roumain, 21, Rue Aristidee Briand, Bucarest, Roumania.

Maracaibo, Venezuela.—Crude oil production of Venezuela Oil Concessions Ltd., for the week ended August 2 amounted to 695,165 barrels, a daily average of 99,433 barrels. This compares with production of 700,461 barrels, or a daily average of 100,068 barrels for the week ended July 19.

Wellington, New Zealand.—A proposal is before parliament that the New Zealand government enter into an agreement with a British oil firm to form a monopoly in this country's markets to combat American interests.

The foremost American companies operating in the country at present or marketing products in New Zealand are Vacuum Oil Company, The Texas Company, Atlantic Refining Company and Union Oil Company of California. A number of other companies also send shipments of oil from California to independent importers in New Zealand. Royal Dutch Shell also markets in New Zealand to an important extent.

Maracaibo, Venezuela.—Venezuela Oil Concessions, Ltd., employed a very unique method in capping wild well, R1420, at Cabimas, that blew in on July 8. The job was accomplished in three days under direction of Messrs. Rockwell and Higgins respectively, field and drilling superintendents of the company. An extra heavy Christmas tree with all four of its 6¾-inch valves open was held in place by ropes through blocks from the four legs of the derrick while the end of the casing, which was carefully wrapped with packing ring, gunny sacking and rope, was stabbed and snubbed into place with the aid of the steam engine pulling the traveling block into place. Valves were gradually cut off until well was completely under control.

Tokio, Japan.—The annual production of natural gasoline in Tuiwan has fluctuated from 346,892 gallons in 1925 to 849,600 in 1926, 211,090 in 1927, and 547,499 in 1928. Official data for 1929 are not available, but preliminary estimates indicate that production will show an increase over 1928. Natural gasoline produced in Tiawan is transported by pipe line and tank car to the refinery, where it is treated and then distributed to the trade.

Wellington, New Zealand.—Oil imports into New Zealand for the year ending March, 1930, continue to show a substantial increase over the figures for the previous year, the aggregate increase being more than 21,000,000 gallons. Of this total, gasoline was responsible for the largest percentage of the increase with an increase of 15,000,000 gallons over that imported for the previous year.

The following table gives the imports for the main products for these two periods:

Products	April,1929, to Mar., 1930 Gallons	April, 1928, to Mar., 1929 Gallons	Increase Gallons
Gasoline	66,434,285	51,373,522	15,060,763
Kerosene	6,678,313	4,835,718	1,842,595
Crude and residual	26,979,112	22,999,876	3,979,236
Lubricating	3,555,457	3,034,962	520,495
Total	103,647,167	82,244,078	21,403,089

Imports of the principal oil products into New Zealand continue to be confined mainly to shipments from the Dutch East Indies and the United States. Borneo continues to supply a proportion of the kerosene to New Zealand. Although the bulk of lubricating oil is imported from the United States, small quantities come from the United Kingdom, Australia, Belgium, Germany and Russia.

In the following table the imports are shown from the Dutch East Indies and the United States for the four main products in the two 12-month periods 1928-29 and 1929-30.

	D. E. I. Gallons	U. S. A. Gallons
Gasoline 1929-30	19,204,169	46,281,583
Gasoline 1928-29	9,173,469	42,199,607
Kerosene 1929-30	1,871,307	3,809,950
Kerosene 1928-29	1,342,645	3,292,073
Crude and residual 1929-30	1,219,220	30,148,099
Crude and residual 1928-29	4,787,782	25,661,585
Lubricating 1929-30	.....	3,356,210
Lubricating 1928-29	.....	2,863,059
Total 1929-30	22,294,696	83,595,842
Total 1928-29	15,303,896	74,016,324

It will be seen that the United States has the preponderance of each product. Proximity to the source of origin explains the difference in the proportions of imports from the Dutch East Indies and the United States into Australia and New Zealand respectively.

A radio message from Roy E. Leigh, associate editor of THE OIL WEEKLY, *who since the first of July has been in Russia, advised that he was leaving Baku by plane on August 6, for Tehran, Persia.*

From Tehran he will proceed by plane to Masjid-i-Sulieman, Basra, Bagdad and Cairo. From Cairo he will go to India, and thence to the East Indies.

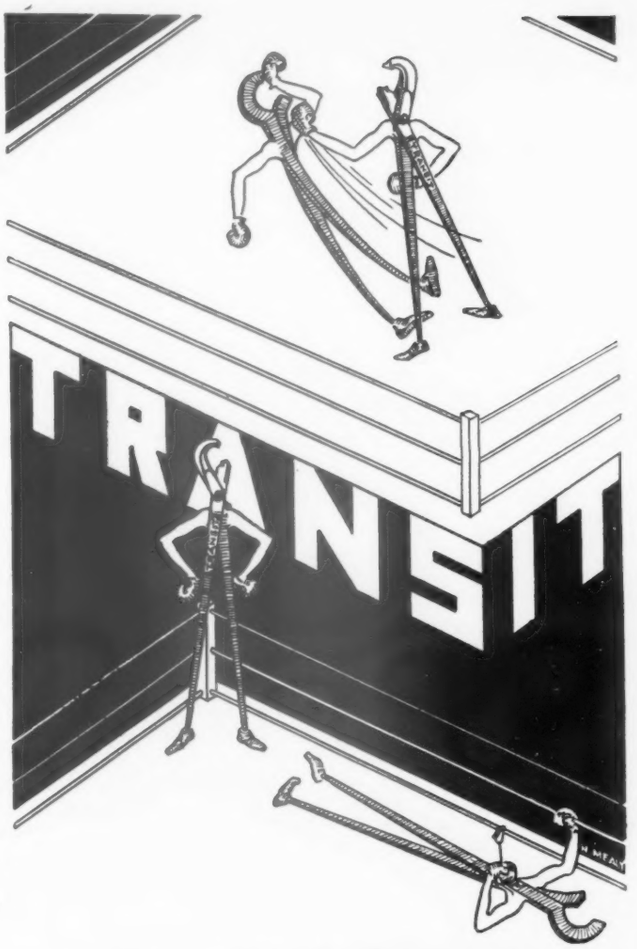
A letter received from Mr. Leigh the same date the radiogram was received, and dated Moscow, July 20, said that he had been ill with a throat infection and high fever in Moscow for some time but that the Soyusneft people in Moscow, whose guest he was, had shown him every attention.

Since January 1 he has visited the headquarters of various important oil companies in London, The Hague, Paris, Berlin, and Moscow, and has visited every oil field in France, Germany, Poland, Rumania, Italy and Russia. Last year he visited every oil field in South America, for THE OIL WEEKLY, *traveling more than 30,000 miles on the southern continent.*

Survey and Map S. Dakota Anticline

Hot Springs, South Dakota.—A plane table survey and map of the Cascade and Chilson anticlines in Fall River County are being made by the state geological survey of South Dakota. The Cascade and Chilson anticlines are the largest structures known in South Dakota outside the folds of the Black Hills.

Transit Red-head wins again..



"Hello, everybody, Grant Memee speaking—Well, the boys are all set to go—Pipe Tong in his corner, doesn't look so good—not so good—Not a cloud in the sky, the field is bathed in a—A-ah, TRANSIT Red Head just comes on, and what a hand this baby gets—In the pink of condition—Best I have ever seen him—There goes the gong—the boys are in the center of the ring—TRANSIT leads with the left—then the right—Pipe Tong slips—he is down—no, he is up—now they are mixing—Pipe Tong slips again—down—looks like he is going to stay down this time—the referee is counting—

"TRANSIT RED HEAD WINS AGAIN!"

"Wait, we'll call him over to say a few words."

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"Hello, folks, Dad and Mother, all my little brothers! That was easy, no trouble sticking with that baby. My trainer in Oil City developed my strength and gave me perfect balance and I didn't slip once."

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Special new solid steel head, specially heat treated.

Bulletin 5-F, "Tools for Pipe Line Construction," on request.

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REEVES & SKINNER MACHINERY CO.
St. Louis, Mo.

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

CALIFORNIA

Company, Well and Location	Initial Production Bbls.	Depth
ELWOOD—		
Bankline Oil Co., Permit 89-6	2000	3420
LONG BEACH—		
Ball and Barnes, No. 1	200	7020
Libby Pet. Co., No. 1	100	7313
Long Beach Pet. Co., No. 1	350	7045
A. N. Macrate, McKaye 3	550	6250
Mendin Oil Co., No. 1	500	7045
Ben F. Mun, Fee 1	100	6710
Roggie and Johnson, No. 2	25	7040
Young Pet. Corp., Hilton 1-A	300	4325
MARICOPA FLATS—		
Patterson and Ballagh, No. 1	25	3110
VENICE-DEL RAY—		
Elmer Oil Co., No. 1	3500	6230
Barnsdall Oil Co., Burks 1	1200	6285

EASTERN STATES

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
WASHINGTON COUNTY—		
Day & Baumgard, Clark 1	10	....
H. V. Sprowls & Co., Logue 1	20	....
Bishop Oil & Gas Co., Tannehill 3	*	2450
Carnegie Natural Gas Co., Taylor 3	20	....
GREENE COUNTY—		
Equitable Gas Co., Stephans 1	¶½	....
Lynch 1	*	....
Johns 1	¶¼	....
Yeager 1	¶1	3605
Peoples Natural Gas Co., Moore 1	¶¼	3662
ALLEGHENY COUNTY—		
Matkovich Oil Co., Warden 1	5	2220
Manufacturers Light & Heat Co., Geptge 1	3	....

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
BOONE COUNTY—		
Mountain State Gas Co., Prince 1	¶¼	1854
Brown 1	¶¼	....
Cambridge Gas Co., Tomkins 1	¶½	3750
The Pure Oil Co., Lafollette & Co. 34	5	....
Lafollette & Co. 37	4	....
ROANE COUNTY—		
Fred Oil & Gas Co., Harless 2	¶¼	2174
Rush Run 2	¶¼	....
United Fuel Gas Co., Igo 1890	1	....
Ross 2539	1	....
The Noble Battie Co., Smith 3	¶1	....
RITCHIE COUNTY—		
Warrior Petroleum Co., McGinnis 6	*	....
Storre 7	*	2469
Clark Braden & Co., Hall Hrs. 1	*	2075
W. H. Bickel, Weinrich 3	*	....
GILMER COUNTY—		
Bowser Oil Co., Mitchell 5	*	....
Robt. Mitchell 3	*	....
Steer Creek Oil & Gas Co., Stump 2	*	....
Philadelphia Gas Co., Kelly 7567	¶¼	1803
CALHOUN COUNTY—		
G. L. Cabot, Sturm 1	¶½	....
M. F. Crawley & Co., Ice 1	2	2011
L. P. Bickel, White 2	10	1824
CLAY COUNTY—		
Virginian Gasoline & Oil Co., Brown-Swan 4258	12	....
Tomkins Fuel Co., Stevens 1	¶1	....
KANAWHA COUNTY—		
United Fuel Gas Co., Quarrier 4233	*	1560
Cambridge Gas Co., Tomkins 1	¶2	....
LOGAN COUNTY—		
West Virginia Gas Corp., Mitchell 1	*	3379
Clendenning Gas Co., Boone County Coal 5	*	....
PARSON COUNTY—		
Reserve Gas Co., Litts 2	2	....
LINCOLN COUNTY—		
Mud River Gas Co., Adkins 2	¶¼	....
WAYNE COUNTY—		
United Gas Co., Wayne Unit Co. 45	¶¼	3030
MARSHALL COUNTY—		
Carnegie Natural Gas Co., Fox 731	¶2	3010
MONONGALIA COUNTY—		
National Supply Co., Marshall 1	*	3510
TYLER COUNTY—		
Morgan Bros., Stewart 1	*	1894

KENTUCKY

Company, Well and Location	Initial Production Bbls.	Depth
HANCOCK COUNTY—		
Loman, Daly & Co., McGovern 5	80	....

Tabulation and Comparison on page 40

Company, Well and Location	Initial Production Bbls.	Depth
HENDERSON COUNTY—		
Niagara Oil & Gas Co., Slavey 4	20	....
MUHLENBERG COUNTY—		
Ellis, Young & Co., Johnson 1	5	....
DAVIESS COUNTY—		
Hupp, Duff & Co., Sparks 2	10	736
Benj. T. Wright & Co., Ambrose 5	15	822
Eastern Gulf Oil Co., Chapman 6	20	647
OHIO COUNTY—		
Chester Oil Co., Patton 4	100	....
Patton 5	300	....
Cumberland Petroleum Co., Hamilton 10	30	....
Hamilton 11	30	....
Moseley 3	*	....
Missouri-Kansas Pipe Line Co.,		
Ferguson 1	¶½	....
Ferguson 2	¶½	....
Duke 20	100	....
Woods Oil Co., Woosley 1	30	....
Thomas & Rowe, Wimsatt 2	25	....
L. C. Young & Co., Mahamie Hrs. 1	30	....
Oliver Jenkins & Co., Nation 2	*	....
Dr. Silverthorn, Murray 1	*	....
C. M. Root & Co., Steele 15	*	....
Dr. Buckner & Co., Chich 2	*	....
Dewey Huff & Co., Fulkerson 1	*	....

SOUTHEASTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
MORGAN COUNTY—		
Williams Bros., Moran 1	¶¼	1674
Wallace & Co., Pickerell 8	*	1193
Ohio Fuel Gas Co., Strode 1	¶¼	1554
NOBLE COUNTY—		
Local Oil Co., Webber-Gain 1	1	265

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
MEDINA COUNTY—		
Oko Oil & Gas Co., Essing 37	7	400
Watson-Wilson 39	5	340
Curtis & Akens, Garva 1	*	352
Ohio Fuel Gas Co., Barnes 1	¶¼	....
Meyer 1	¶½	....
ASHLAND COUNTY—		
Gold Crown Oil & Gas Co., Horn 3	30	691
MUSKINGUM COUNTY—		
Fetty & Louchery, Conden 2	¶¼	1217
Palmer & Geisinger, Slack 1	80	4066
McIntyre & Guthrie, Ford 2	*	3630
LICKING COUNTY—		
Wittmer Properties Trustee, Mossholder 5	160	....
The Pure Oil Co., Priest 6	74	2862
HOLMES COUNTY—		
Lydic Oil & Gas Co., Swank 5	¶¼	765
KNOX COUNTY—		
Ohio Fuel Gas Co., Staats 1	¶¼	....
PERRY COUNTY—		
Perry Sturm & Co., Spohn 1	¶¼	2943
FAIRFIELD COUNTY—		
City Natural Gas Works, Hartman 4	¶5½	2362
LORAIN COUNTY—		
Ohio Fuel Gas Co., Ives 1	*	....
WAYNE COUNTY—		
Green & Co., McAnaney 3	*	....
COSHOCTON COUNTY—		
Ohio Fuel Gas Co., McLeod 1	*	3978

NORTHWESTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
HARDIN COUNTY—		
Geiger Oil Co., Geiger 2	30	1393
Eagon, White & Co., Steiner 1	¶¼-25	1420
The Kemrow Co., Howard 1	*	1474
HANCOCK COUNTY—		
Heckathorn Oil Co., Stewart 7	30	....
L. Cramer, Huntwork 1	*	1380
AUGLAIZE COUNTY—		
Floyd Fry & Co., Whetstone 3	7	1193
MERCER COUNTY—		
The Recovery Oil & Gas Co., Bruch 1	¶¼	....
WOOD COUNTY—		
M. B. Chidester, Stratton 9	*	1560

INDIANA

Company, Well and Location	Initial Production Bbls.	Depth
SULLIVAN COUNTY—		
Chas. W. Scott & Co., Davis 2	*	852
PIKE COUNTY—		
Wiser Oil Co., Phillips 6	40	1357
P. C. Andrews, Atkinson 10	25	1406
William Bell & Co., Hyneman 2	¶1½	1472
H. H. Risher, Crow 1	*	1200

ILLINOIS

Company, Well and Location	Initial Production Bbls.	Depth
MONROE COUNTY—		
Chambers & Co., Huch 1	*	845
H. M. Backus & Co., Demint-Hardy 1	*	470
RANDOLPH COUNTY—		
Petroleum Enterprise Co., Dufour 1	*	1276
ST. CLAIR COUNTY—		
The Ohio Oil Co., Anderline 3	*	819
WABASH COUNTY—		
J. D. Toomey, Reiber 1	*	1600

MICHIGAN

Company, Well and Location	Initial Production Bbls.	Depth
ISABELLA COUNTY—		
The Pure Oil Co., Fox 9	110	3052
Swade 1	290	....

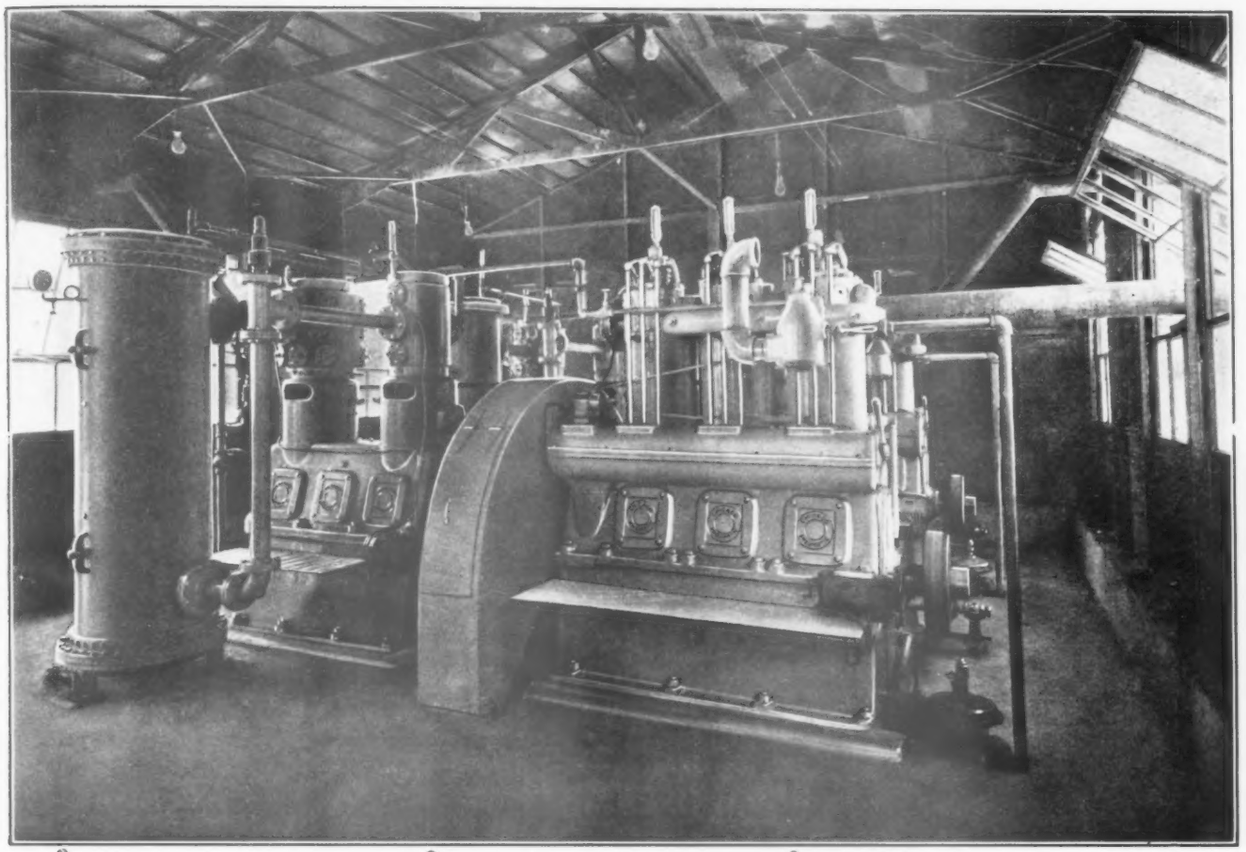
KANSAS

Company, Well and Location	Initial Production Bbls.	Depth
BUTLER COUNTY—		
Richmond Drilling Co., McLean 2	15	3125
COWLEY COUNTY—		
Empire O&R Co., Hill 1	70	2910
GREENWOOD COUNTY—		
O'Neal et al, Harlan 2	150	1900
Empire O&R Co., Patterson 10	200	1802
Nesbit 4	150	1753
Aladdin Pet. Co., Gurgan 1	*	2110
McPHERSON COUNTY—		
Sinclair O&G Co., McCurdy 4	895	3292
SEDGWICK COUNTY—		
Shell Pet. Co., Morris 1	75	3180
Wixon and Spencer, Rounds 5	*	3403
Derby Oil Co., Eastborough 1	800	2961
Vickers Pet. Co., Keys 1	1000	3228
RICE COUNTY—		
Danciger O&G Co., Bell 1	*	3705
Independent O&G Co., Jansen 1	*	3530

OKLAHOMA

Company, Well and Location	Initial Production Bbls.	Depth
CADDO COUNTY—		
Magnolia Pet. Co., Cement-Edwards 3	¶18	3407
CARTER COUNTY—		
Trevelyn Oil Co., Mitchell 1	2665	2457
Magnolia Pet. Co., Cox 1	*	4650
CREEK COUNTY—		
C. G. Tibbens O&G Co., Sneed 3	40	2378
Ed Jilson et al, Self 1	20	2737
A. B. Ice Co., Fulsom 11	5	1917
Shaw-Mut Oil Co., Self 1	¶2	2129
Bryan Pet. Co., Nay 1	¶¼	1102
Transcontinental Oil Co., Cubbie 2	30	1505
Glen, Cole et al, Withers 1	*	3139
Sells and Maytch, Bough 1	*	2697
HUGHES COUNTY—		
Gilcrease Oil Co., Punka 3	*	2845
Iglehart and Gypsy Oil Co., Barnett 1	¶38	3139
Minnehoma O&G Co., Brown 1	¶85	2913
KAY COUNTY—		
Carter Oil Co., Jameson 2	*	3650
LATIMER COUNTY—		
LeFlore County O&G Co., McFarrell 12	20	1800
LINCOLN COUNTY—		
Coline Oil Co., Telford 1-A	5374	5044
Magnolia Pet. Co., Freeman 2	*	5105
T. B. Slick, Hammer 1	*	6102
McINTOSH COUNTY—		
H. J. Weible, Asbill 1	*	857
MUSKOGEE COUNTY—		
F. L. Beam and Co., Thomas 1	¶3	1266
Hail et al, Harris 1	*	1053
J. M. Foltz, Spaulding 4	*	991
H. Burke et al, Fields 1	*	995
OKFUSKEE COUNTY—		
Sunray Oil Co., Dindy 3	¶15	3075

(Continued on Page 73)



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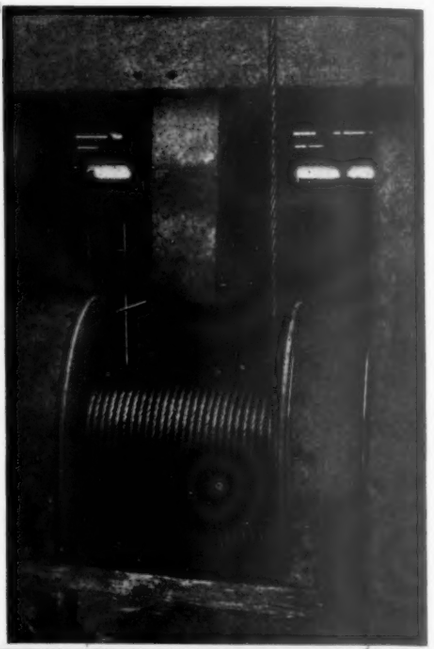

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Company, Well and Location	Initial Production Bbls.	Depth
Feru Oil Co., Turner 1	8	1859
Gilcrease Oil Co., Wind 4	10	1491
OKLAHOMA COUNTY—		
T. B. Slick and Tidal O'l Co., Martin 1	*	6964
I. T. I. O. Co., Emerson 11	1312	6497
Sudik 3	14,631	6558
Heenan and Coe, Cunningham 2	15,415	6420
Jack Shaffer, Baker 1	15,264	6390
Slick and Atkinson, Baker 4	19,238	6493
Slick et al, Carter 1	18,177	6504
Slick and Atkins, Crawford 1	13,883	6545
T. B. Slick Foote 1	¶110-4490	6595
Wirt Franklin Pet. Corp., Theimer 6	9096	6568
I. T. I. O. Co., Carrico 1	9744	6524
Spillman 1	10,227	6526
I. T. I. O. and Hall and Briscoe, Gray 1	5290	6544
Coline Oil Co., Clauer 1	11,948	6631
OKMULGEE COUNTY—		
J. K. Gardner et al, Sutton 7	7	1647
Elm Oil Co., Rentie 12	25	1104
E. J. Lambert, Stevens 1	15	1201
Kirkland and Son, Brown 1	*	2066
OSAGE COUNTY—		
A. G. Oliphant, 1	25	2434
Devonian Oil Co., 3	75	2036
Galt Brown Oil Co., 3	140	2641
Clint Moore et al, 3	40	2371
Sand Springs Home, 11	*	2107
Boston Heights Oil Co., 3	*	2622
I. T. I. O. Co., 430	*	2079
PAWNEE COUNTY—		
Martin et al, Cotton 2	20	2336
PAYNE COUNTY—		
Home Gas Co., Kirk 3	*	4218
Minnehoma O&G Co., Shadd 1	*	5080
POTTAWATOMIE COUNTY—		
Commerce Dev. Co., Townlot 1	350	4355
Dillon Dev. Co., Townlot 1	720	4373
Twin State O'l Co., Archer 3	1915	3547
SEMINOLE COUNTY—		
Gypsy Oil Co., Peters 7	*	4264
Deep Rock Oil Co., Crump 1	*	4145
Magnolia Pet. Co., Palmer 1	*	3190
Harris et al, Chupco 3	*	3185
The Texas Co., Lewis 4	250	2900
Papoose Oil Co., Davis 1	504	2540
Carter Oil Co., Rogers 3	580	4253
Magnolia Pet. Co., Dale 1	388	3176
Gypsy Oil Co., Cochran 1	85	3708
Hilton A. Phillips, Hyde 5	895	2891
Empire O&R Co., Dameron 1	380	2913
STEPHENS COUNTY—		
Wirt Franklin Pet. Co., McPhail 1	*	4528
Barney Cockburn, Funk 1	*	2272
WAGONER COUNTY—		
Smith et al, Smith 2	*	1000
WASHITA COUNTY—		
H. S. Kaufman, Nelson 1	*	1275
WOODS COUNTY—		
Peerless Oil Co., Cromwell 1	*	6325

NEW MEXICO

LEA COUNTY—		
A. D. Morton et al, State 1	*	5267
Sun Oil Co., H. D. McKinley 1	¶10-11,080	4175
Texas Pacific Coal & Oil C., State 3-A	*	3793

TEXAS

TEXAS PANHANDLE

CARSON COUNTY—		
The Texas Co., C. R. Garner 1-B	50	3175
Texas Interstate P. L. Co., S. B. Burnett 1	¶35	2650
DONLEY COUNTY—		
Marine Oil Co., R. Sawyer 1	*	4210
GRAY COUNTY—		
Continental Oil Co., Carrie Wright 1	¶6-1810	2844
Danciger O&R Co., H. K. Beck 8	400	2893
DeRosa O&G Co., J. M. Saunders 2	430	3035
Humble O&R Co., Combs-Worley 4	400	2865
Combs-Worley 6	¶13-2165	2841
Magnolia Pet. Co., S. Faulkner 8	¶5-555	2920
McAuley et al, J. S. Morse 4	40	2596
Phillips Pet. Co., Combs-Worley-Foxx 3	¶10-1800	2865
Prairie O&G Co., Combs-Worley-Moody 1	435	2857
Combs-Worley-Moody 2	¶25-2480	2855
The Texas Co., W. W. Harrah 2	440	3235
W. Wilson et al, S. Heaston 1	*	3259
HUTCHINSON COUNTY—		
Badger Oil Co., Tom Lewis 4	60	2952
MOTLEY COUNTY—		
The Exploration Co., Matador 6	*	4160
WHEELER COUNTY—		
Lone Star Gas Co., H. Close 1	¶23	1698

NORTH TEXAS

ARCHER COUNTY—		
E. S. Bell et al, Turbeville 1	*	1596
John Dixon et al, Richardson 1	*	1139
Fain-McGaha Oil Corp., Portwood 2-D	*	1383
Golding-Cochran et al, Lowe 1	*	1382
Golding-Cochran-Dixie Oil Co., Lauster 1	25	1450
Golding-Cochran-Moran Drlg. Co., Brown-Smith 2	*	1500
Heydrick & Hickman, Abercrombie-Taylor 3	*	1502
Junker & Perkins, Hunt 1	*	1508
M. Keyes et al, Coffelt 1	*	1350
W. E. Maxson et al, Green 8-B	30	1125
Nicholson et al, Taylor 2	15	740
Geo. L. Pace et al, Arnold 2	55	1219
W. C. Young et al, Taylor 1-C	30	1743
CLAY COUNTY—		
Merrick & Goldsmith Givens 1	*	1776
COOKE COUNTY—		
Danciger O&R Co., Reeves 1	*	1803
Fain-McGaha Oil Corp., Vestal 2	*	1105
United Producers Co. et al, Dennis 1-E	*	1526
DENTON COUNTY—		
Lloyd O'l Corp et al, Gracie 1	*	2004
GRAYSON COUNTY—		
C. E. Litchfield et al, Coleman-Peters 1	*	1800
JACK COUNTY—		
Brazos River O&G Co., Clayton 2	¶22	2900
Buttram Pet. Corp., Jones 11	*	2025
MONTAGUE COUNTY—		
Texas Chief O&G Co., Mitchell 1	*	2000
WICHITA COUNTY—		
R. R. Clark et al, Bickley 7	125	858
Geo. J. Proctor et al, Honaker 2	215	856
WILBARGER COUNTY—		
Empire Gas & Fuel Co., Waggoner 14-B	4	2588
Waggoner 20C	20	1908
Harry Hines-Consolidated Oil Co., Waggoner 1	*	1850
Phillips Pet. Co., Waggoner 1-KK	20	2470
YOUNG COUNTY—		
Baker & Pardue, Donnell 1	*	3340
Consolidated Oil Co., Gathright 1	*	1000
Culberson Bros. et al, Ward 1	*	700
Elliott & Kleiner, Kirkland 1	*	702
F. P. Hynes et al, Washburn 1	*	853
Jacob O&G Co., Gathright 1	*	845
Junker & Perkins, Slone 1	*	1103
E. B. Lawson et al, Leberman 1	*	1011
L. A. Long et al, Sims 1	*	890
Geo. Mollenkolph et al, Larimore 4	*	728
Panhandle Ref. Co., Larimore 5	*	735
Rathke Oil Co., Brown-Phillips 1	*	4330
Shaw Oil Corp., Kisinger 2-B	400	2566
T. B. Slick et al, Morrison 2-C	*	3859
Williamson 1	50	4192
A. H. Stolz et al, Baldwin 1	*	757
Westheimer & Daube, Brock 1	*	1153
C. C. Williams et al, Newman 1	*	555
Williams & Lewis, Loftin 1	*	603

CENTRAL WEST TEXAS

BROWN COUNTY—		
S. B. Owens, Inc., et al, Reaves 1	*	1302
COLEMAN COUNTY—		
Wann et al, Sharp 1	*	1900
COMANCHE COUNTY—		
Brown et al, Scott & Utterback 2	*	3607
EASTLAND COUNTY—		
Crantill-Reynolds Co., Powell 1	¶4	870
Hoffman & Page Oil Co., Coon 4	14	1268
Ed. Keough et al, Jones 2	¶1-200	3477
Lone Star Gas Co., Allen 3	*	3610
PALO PINTO COUNTY—		
Wickens et al, Cunningham 1	*	3292
SHACKELFORD COUNTY—		
King Royalty Co., Brewster 3	400	2106
Simmons et al, Harvey 5	*	1909
C. Smalley et al, Alexander 1	*	1363

WEST TEXAS

CRANE COUNTY—		
Gulf Prod. Co., J. T. McElroy 2-B	125	2975
ECTOR COUNTY—		
Simms Oil Co.-Phillips Pet. Co., University 3	840	3649
PECOS COUNTY—		
Black-Doran & McGee, Pecos Valley 1	100	1575
Cardinal Oil Co., Tippett-Tidal 2	40	439
The California Co., Smith 7, Lse. 1, Sec. 21	8150	1690
UPTON COUNTY—		
Eppenauer Drlg. Co., W. A. Chaney 3	400	2475

CENTRAL EAST TEXAS

VAN ZANDT COUNTY—		
The Texas Co., W. H. White (20-ac) 1	5000	2931

SOUTH TEXAS

Cosden Oil Co., McKinney 3	40	3655
Ed Price, Weiss 1	¶30	4411
Union Prod. Co., Ray 15	40	3910
Union Prod. Co., Ray 16	¶20	3848
DUVAL COUNTY—		
South Texas Prod. Co., Peters 1	¶20	1806
DARST CREEK—		
Gulf Prod .Co., Dix McKean 4-A	1500	2581
WEBB COUNTY—		
O. W. Killam, Bruni 5	¶15	3000
ZAPATA COUNTY—		
Allied Gas Co., Guittierez 3	125	1260
Allied Gas Co., Trevino 14-A	100	1249
Edgington and Niles, Trevino 4-B	¶25	1229
Henne & Winch, Jose Bustamente 1	25	1368
O. W. Killam, Cuellar 17-B	100	1545
O. W. Killam, Martinez 2	¶10	1623
W. R. Shankle, Trevino 4	150	1260
SRC Corporation, Cuellar 10-B	80	1229
SRC Corporation, Trevino 4-A	65	1280

EAST TEXAS

PANOLA COUNTY—		
Texas Co., G. W. Brumble 10, E. F. Mitcheson sur	¶2½	2350

TEXAS GULF COAST

BARBERS HILL—		
Yount-Lee Oil Co., Chambers Co., Ag. Assn. 11	250	4092
Phillips 4	450	5285
CLAY CREEK—		
Sun Oil Co., Witte 3	300	1235
DAMON MOUND—		
Cullen & West, Ward 1	*	4510
FANNETT—		
Gulf, Guy W. Junker et al A-2	*	4650
HIGH ISLAND—		
McLean Oil Co., Cade 17, total depth 4750 ft, flowing 600 bbls water and	210	3760
NORTH DAYTON—		
Houtex Prod. Co., Deering-Wilhite 2	*	5230
PIERCE JUNCTION—		
Saxet Oil Co., Herman Hospital 7	1000	4500
Rio Bravo Oil Co., Settegast 19-A	6200	4220
PORT NECHES—		
The Texas Co., Kuhn 2	725	4412
REFUGIO—		
Pearson Properties, Tobe Wood 1	*	5503
SARATOGA—		
Rio Bravo Oil Co., Cotton 88-A	40	580
SPINDLE TOP—		
Yount-Lee, McFadden 19, dd	960	3530
McFadden 123, dd	120	4900
McFadden 137	¶1	5420
PETTUS—		
Union Prod. Co., Ray 15	400	3926
Ray 16	10	3863
Southern Crude Oil Purchasing Co., M. Dahl 1, 2 mi nw Cosden area in Geo. Pagan sur	*	4350
Rio Bravo Oil Co., SA&AP R. R. 7, w side Pettus town	*	3910
Humble, McKinney 5	500	3903
E. M. Jones, Wm. Rapp 1, 1 mi sw Tuleta, 3½ mi n Nichols producer	*	6062
Geo. A. Henshaw, Beck 1, 1 mi ne Hicks producer	*	4273
Al Buchanan et al, No. 1, Blk. 38, Pettus town	150	3926
Dr. W. E. Hewitt et al, G. A. Ray 1, B&B sur. 27 Goliad Co., ¾ mi n Union Prod. Co.'s Ray 3	*	4315
GOOSE CREEK—		
Cullen & West, Scorrega 4	*	2567
HULL—		
J. S. Bashara, Layton 1	240	3991
Houston Prod. Co., Barngrover 15	150	3838
HUMBLE—		
Rio Bravo Oil Co., Fee 3	1800	4200

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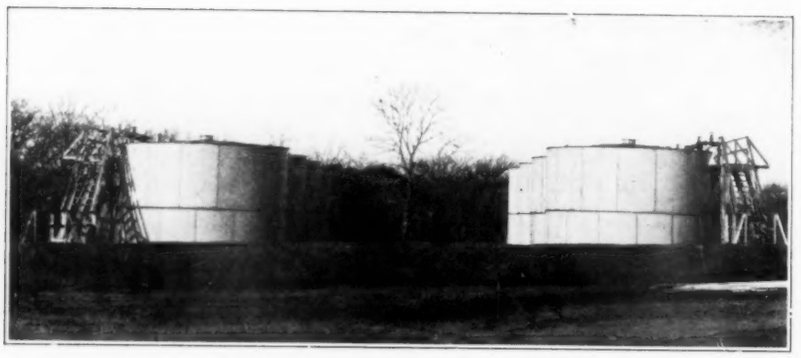

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MALONEY

ALONE

Company, Well and Location	Initial Production Bbls.	Depth
MARKHAM—		
Hamil & Hamil, Myers 1	55	2315

SOUTHERN LOUISIANA

BAYOU BOILLON—		
Rycade - Humble, Bayou Bouillon 10-B	825	4284
EAST HACKBERRY—		
Calcasieu Oil Co., Doiron 1	3000	3941
FOUR LEAGUE BAY—		
Freeport Sulphur Co., Nelson 1, Sec. 12-21s-12e, Terrebonne Parish	*	6025
LAKE PELTO—		
The Texas Co., Lake Pelto B-2	*	3033
SULPHUR—		
Union Sulphur Co., Fee 731, wo	*	4875

NORTHERN LOUISIANA

BOSSIER PARISH—		
Arkansas Fuel Oil Co., Bain 2, 31-23-11	383	3163
Gulf Ref. Co., Allums 1, 36-23-12	*	3203
Woodley Pet. Co., Schuler 2, 13-17-12	¶4½	1753
CADDO PARISH—		
Gulf Ref. Co., Leonard Fee 1, 29-20-15	50	2353
P. T. Mize, La. O. R. Corp. A-1, 6-20-15	9	1563
LA SALLE PARISH—		
O. W. Clark, Russell B-1, 25-10-1e.	30	1550
MOREHOUSE PARISH—		
Nemours Corp., Digby 2, 11-20-3e.	¶4	2120
OUACHITA PARISH—		
Louisiana G&F Co., Breard 3, 25-20-4e	¶1½	2200
RICHLAND PARISH—		
Louisiana G&F Co., McCoy C-1, 8-16-6e	¶25	2450
Palmer Corp., Seubert 1, 1-16-5e	¶53	2450
United Carbon Co., R. B. McGown 1, 16-17-6e	¶5	2450
SABINE PARISH—		
Bridges-Clark Oil Co., Guy et al 2, 33-10-12	12	3194
Lion O. R. Co. & Lide et al, Sabine Lbr. Co. 3, 31-8-12	*	2545
Wilder et al, Parrott 1, 31-8-12	*	2610

ARKANSAS

UNION COUNTY (Smackover)—		
Lion O. R. Co., Murphy D-5, 8-16-15 (sec. compl.)	*	2360
Lawton A-10, 10-16-15 (sec. compl.)	30	2297
Louisiana O. R. Corp., Flenniken 1, 6-16-15 (sec. compl.)	*	1950

Test Lower Levels at Huntington Beach

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View Point No. 1 for I. T. I. O.
Schoenfeld & Hunter, Contractors

Reading from left to right: J. H. Brown; D. P. Self; M. C. Ray; M. Munger; R. E. Fowler, Driller.

H. G. Trosper No. 2 for I. T. I. O.
Prince Bros., Contractors

Reading from left to right: John Pittman, Driller, seated; J. H Parrish, seated; standing, J. B. Posey; T. H. Davis; K. Wiser.

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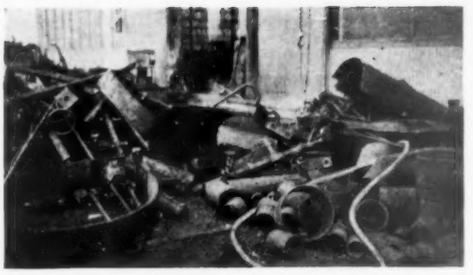

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Industrial Cleaning Materials and Methods

WILDCATS FROM ALL SECTIONS

NORTHERN CALIFORNIA

Company, Well and Location	Initial Production Bbls.	Depth
GOLETA—		
Carrey and Adams' Montecito 1, 1-4-28	*	2855
Ring Oil Co., Mariam More 1	*	5570
ORELLA—		
Shell's Orella 1	*	2360
PURISIMA—		
Vaqueros-Major Oil Co., Union Annex 1, 6-7-33	550	2997

KERN COUNTY

ANTELOPE PLAINS—J. Wrenn's No. 1, 32-25-17, dr shale 800 ft.

BELRIDGE—Richfield's Belridge 1, 22-27-20, dr shale 2400 ft. Rio Grande's Garcia 1, 18-28-22, fsh 3680 ft. K. C. Wallace's No. 1, 32-29-21, dr shale 3488 ft.

BUTTONWILLOW — Nordon Oil Corp.'s Salisbury 1-A, dr shale 4200 ft.

COMANCHE POINT — W. W. Stabler's No. 1, 4-11-18, dr shale 1750 ft.

EDISON—Petroleum Securities Co.'s Johnson-Moss 1, 14-29-29, dr shale 1640 ft.

EL TEJON—Elmer Oil Co.'s Tejon 1, 15-30-30, dr hard sand 4875 ft. J. J. Ritchie's No. 1, 33-11-19, dr shale 940 ft.

McKITTRICK—Ohio's M. M. 1, 32-20-22, dr hard sand 6808 ft.

PATTIWAY—H. A. Bardeen's Klipstein 1, 18-10-23, installing rotary, td 1185 ft; Ramsey 1, 10-10-23, dr shale 3322 ft.

SEMITROPIC—Shell's Williams 1, 17-27-23, dr shale 4600 ft.

SHALE HILLS—Rio Cal Pet. Co.'s No. 1, 2-27-18, dr shale 1437 ft.

WEED PATCH—Shell's Porter Day 1, 29-30-29, swabbing on production test, td 5029 ft.

SANTA BARBARA COUNTY

CAMPBELL'S POINT — Bolsa Chica Oil Corp.'s Augur Permit 191-1, dr shale 1050 ft.

CASITAS PASS—Standard's Shepard 2, 26-4-25, dr shale 1350 ft.

CASMALIA—Wildcat Oil and Royalty Co.'s Donovan 1, 20-10-35, dr 4978 ft.

EL TORO — Shell's Fithian 1, 18-4-25, dr hard sand 4400 ft.

GATO RIDGE — Barnsdall's Tegnazzini 1, 9-8-32, dr shale 2525 ft.

GOLETA—General Pet.'s More 3, rigging up rotary.

LOMPOC—Prairie's Shyvers 1, 11-7-35, dr gray sand 4455 ft.

NAPLES—J. H. Cochran's No. 1, 7-4-29, coring 1330 ft.

POINT CONCEPCION—Standard's Gerber 1, dr gray sand 5268 ft. Universal Consolidated's Concepcion 1, 30-5-34, dr gray sand 3808 ft.

SANTA MARIA — O. C. Fields Gasoline Co.'s Norswing 1, 8-9-33, dr shale 3912 ft; Bradley 1, co 5525 ft, td 5627 ft. Western Gulf's Bradley 1, 5-9-33, lcn.

VENTURA COUNTY

FILLMORE—General Pett.'s Burson 1, 6-9-13, 11¾-inch cas cmt 2535 ft, td 2923 ft.

HOPPER CANYON—Rio Grande's Lankershim 1, 13-4-19, re-dr 1650 ft. George H. Hadley's No. 1, 13-4-9, co 850 ft.

PIRU—Bolsa Chica Oil Corp.'s Snow 1-A, 4-4-18, dr shale 2465 ft.

RINCON—Associated's Snowball 1, 19-4-24, sd 2080 ft. Chanslor-Canfield Midway's Hobson A-2, 23-3-24, new rig after fire, td 7479 ft.

SANTA PAULA—Empire Oil Co.'s Steen 4, 13-4-21, plugging back to test upper showings, td 3840 ft. George C. Thompson's No. 1, 15-4-21, dr shale 1158 ft.

SESPE—Superior's Kirtlan 1, 15-4-21, rig.

SIMI—Richfield's Tapo 1, dr 150 ft.

SOMIS—Shell's Everett 1, dr shale 2626 ft.

VENTURA—Prairie's Sexton 1, 30-3-22, dr shale 6642 ft.

MISCELLANEOUS

FRESNO COUNTY—R. Oiler's No. 1, 14-20-14, dr shale 322 ft. Ohio's Welch-Brix 1, Richfield's Schrock 1, 33-22-16, dr hard sand 2820 ft.

KINGS COUNTY—Hornaday and Huggins' No. 1, 32-14-28, fsh 5050 ft.

ABBREVIATIONS

NOTE—The following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million feet of gas; abn—abandoned; bbls—barrels; b.s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in.—inches; lcn—location; m—milling; n, s, e, w—north, south, east, west; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr — straight reaming; std—standardizing; sw—salt water; td—total depth; ur—underreaming; wo—workover; Wosr—waiting on standard rig.

MONTEREY COUNTY — Standard's Piedmont 1, 23-22-7, dr hard sand 4862 ft.

SAN LUIS OBISPO COUNTY—Panorama Oil Co.'s Panorama 1, 7-31-21, sdtr 6¼-inch cas, td 4010 ft. Paso Robles Synd.'s Emerick 1, 34-27-11, co 3895 ft. Pismo Dome Oil Co.'s Pricco 2A, 5-31-13, dr shale 2650 ft. Texas Pacific Coal and Oil's No. 1, 25-32-14, rigging up rotary, td 4000 ft.

TULARE COUNTY—Colton Drilling Co.'s Henshaw 1, 33-22-27, rig. Consolidated Properties' No. 1, 35-22-27, dr shale 900 ft. Larson Oil Co.'s Best 1, 11-23-27, ready to sp. Payatt Oil Co.'s Henshaw 1, 34-22-17, rig. Terra Bella Drilling Co.'s Rushing 1, 34-22-27, dr oil sand 933 ft. Western Oil and Exploration Co.'s Gardiner 1, 35-22-27, dr shale 978 ft.

SOUTHERN CALIFORNIA

CORONA—Western Gulf's Abacherli 1, lcn.

EL MONTE—Los Gatos Oil Co., Sing 1, rigging up rotary.

FULLERTON — Standard's Bastanchury 1, dr shale streaks oil sand 6215 ft. L. C. Simmel's Todd 1, dr hard sand 2200 ft; Fricke 1, lcn.

MONETA—Ohio's Fish 1, dr shale 7110 ft.

NEWHALL—Dudley-Newhall Interests' No. 1, lcn. M. K. T. Oil Co.'s Farrier 1, grading for rig. National Securities Co.'s Seeple 1, will deepen from 1125 ft. Southern California Drilling Co.'s Needham 4, dr brown shale 682 ft. York and Lockhart's Clampitt 3, dr shale 1150 ft. Webb and Bush's Trumbull 1, dr 150 ft.

NEWPORT—Mesa Pet. Corp.'s B. G. 1, pumping water, td 4916 ft. Standard's Irvine 1, dr gray sand 1528 ft.

PLAYA DEL REY—Olympic Reality and Oil Co.'s No. 1, rigging up rotary.

PUENTE HILLS—Arden Oil Co.'s Rowland 1, rigging rotary. Bardeen Oil Co.'s Didier 1, dr shale and streaks sand 3318 ft. Grimes and Girrard's No. 1, sdtr cas 1510 ft. Rio Hondo Pet. Co.'s Rowland 1, deepening from 2550 ft. Union's Sansinena 11, dr shale 4355 ft. Western Gulf's Diamond Bar 1, dr gray sand 6458 ft.

ROSECRANS — Burlingham Pet. Corp.'s Hardy 1, dr shale 4500 ft. Tri State Pet. Corp.'s No. 1, dr hard shale 4390 ft.

SAN FERNANDO—Shell's Andrews 1-1, dr shale and hard sand 4015 ft.

SANTA FE SPRINGS—Union's Orchardale 1, dr shale 3460 ft.

SAN JUAN CAPISTRANO—O. K. Carr's Foster 2, dr brown shale 4202 ft.

TORRANCE—California-Ventura Oil Co.'s Holston 1, 8⅝-inch cas cmt 2770 ft, td 3390 ft. Rio Grande's Watson 1, dr shale 6135 ft.

COLORADO

ADAMS—N. M. Slatt 1, se 27-25-64w ,stand 1920 ft.

ARAPAHOE—McDebb Dr. Co.'s Fitzsimmons 1, 7-45-66, prep to run 4½-in. to 5692 ft.

ARCHULETA—Outwest Inv. Co.'s Fitzhugh 1, se 34-33n-1e, dr 405 ft.

BACA—A. R. Jones Oil & Optg. Co.'s Boice Cattle 1, 22-34s-42w, dr 2130 ft.

BOULDER—Reliance Oil Co.'s Erickson 1, nw 33-2n-70w, abd 3150 ft.

DELTA—Crawford O&G Co.'s McKissen 1, ne 28-15s-91w, stand 1100 ft.

DOLORES—Transcontinental's Glade 1, nw 11-41n-16w, dr 6765 ft.

DOUGLAS—Perry Parl Oil Co.'s Cannon 1, nw 11-9s-69w, dr 1300 ft.

EL PASO—Utemore Syndicate's Carson 2, ne 10-16s-66w, dr 965 ft.

GARFIELD—Fulton Pet. Co.'s Permit 1, ne 8-8s-102w, dr 865 ft.

JEFFERSON—Ruby Hill O&G Co.'s Braden 1, se 24-4s-59w, co 3568 ft.

HUERFANO — Oarker-Club and Kinney-Coastal Fee 1, se 4-28s-69w, fsg cas 4116 ft. Ojo Exp. Co.'s Ojo 1, 5-29s-69w, cas at 193 ft.

LARIMER—Smith et al's State 1, ne 36-12-70w, ready to spud.

LAPLATA—McGarr Pet. Corp.'s Red Mesa 1, ne 27-33n-12w, dr 2186 ft. Detroit Oil Ass'n.'s Olbert 1, se 9-35n-12w, stand 2623 ft. Murchison Oil Co.'s Doescher 1, nw 9-33-13w, dr 400 ft.

LINCOLN—Kelly Oil Co.'s State 1, ne 36-14n-57w, stand 3415 ft.

MESA—Argo Oil Co.'s Hoel 1, ne 23-8s-104w, co at 2750 ft, td 3000 ft.

MOFFAT—Vermillion Oil & Gas Synd.'s 1, se 23-9n-100w, stand 642 ft. Midwest's Hannawalt 24, 4-6n-92w, dr 2922 ft. Mtn. Fuel Supply's 1, 35-12-101, co 2040 ft. Mtn. Fuel Supply's Musser 1, 5-11-97, dr 1410 ft. S. H. Keoughan et al's State 1, sw 16-4n-101w, dr 1515 ft.

MONTEZUMA—Haller et al's Haller 2, 33-36n-14w, dr 480 ft.

MORGAN—Ind. Terr. Illum. Oil Co.'s State 1, ne 16-1n-7w, dr 2510 ft.

PARK—So. Park Oil Co.'s Milligan 1, se 13-9s-76w, dr 800 ft. So. Park O&G Co.'s Esche 1, ne 5-9s-76w, dr 310 ft.

RIO BLANCO—Texas Prod. Co.'s Potter 1, se 30-2n-69w, gas at 5987 ft, blow to co Magnolia Pet. Co.'s Fordham 1, sw 9-2s-96w, plug back to save gas at 5130 ft.

WELD—Platte Valley Pet. Corp.'s Patterson 1, se 24-6n-61w, stand 6324 ft.

WASHINGTON—Middlemist Oil Co.'s Middlemist 1, se 14-4s-56w, dr 1260 ft.

NEW MEXICO

DE BACA—Matador Oil Co.'s Wood 1, se 6-4n-20e, res at 3005 ft.

EDDY—Lockhart et al's Parker 2-X, se 3-17s-30e, dr 2750 ft.

LEA—Hobbs High Co.'s State 1, se 35-18s-38e, dr 3595 ft. Landreth Prod. Co.'s State 1, 7-18s-38e, dr 4240 ft. Amerada's State 1-A, ne 32-18-38, dr 4035 ft. California Co.'s State 1, se 29-18s-38e, dr 4075 ft. Humble O&R Co.'s Bowers 2-A, 30-18s-38e, dr 4010 ft. Sun Oil Co.'s McKinley 1, ne 5-19s-38e, dr 4000 ft. Shell Pet. Corp.'s State 2, ne 32-18s-36e, dr 4020 ft. Morton et al's State 1, ne 32-11s-38e, stand 5275 ft. Tidal's Coleman 1, ne 17-21s-36e, dr 3600 ft. Atlantic Oil Co.'s State 1, ne 6-19s-38e, dr 2800 ft.

McKINLEY—J. W. Halsell's Santa Fe 1, 17-18-9w, dr 3267 ft. Wms. et al's A. T. S. F. 1, sw 19-18n-8w, dr 2245 ft. Walker Drake Oil Co.'s 1, 12-15-10, stand at 1012 ft.

RIO ARRIBA—Berringer et al's Hartman 1, ne 8-29n-7w, sd 825 ft. San Juan Pet. Co.'s Gov't 1, se 14-30n-7w, dr 346 ft.

SAN JUAN—Dorothy Oil Co.'s Terwilliger 2, 29-30-9w, dr 1855 ft. Southern Union Gas Co.'s Day 1, se 20-28n-10w, dr 1831 ft. Childers Dr. & Pr. Co.'s Westwater 2, nw 23-31-16w, sd 2525 ft. Reserve Oil Co.'s Shagen 2, ne 1-21n-14w, sd 780 ft. Rio Grande Dev. Co.'s Lanier 2, 9-29-11w, cas 1280 ft.

SAN MIGUEL—Pioneer O&G Co.'s Thunderbird 1, nw 14-15n-16e, wait 2355 ft. Starr Oil Co.'s Adams 1, ne 25-17n-16e, 8⅝-in. at 3271 ft. Cibola Pet. Co.'s Crown 1, se 9-13n-14e, ready to resum 320 ft. Hershfield Dev. Co.'s Cabra Springs 1, ne 21-12n-22e, dr 1262 ft.

SOCORRO—Lockhart & Co.'s Stackhouse 2, 14-3s-6e, fsg 2775 ft.

TORRANCE—Williams et al's Staplin 1, ne

16-8n-10e, stand 1643 ft. J. B. Witt O&G Co.'s Kutchem 1, 12-17s-7e, dr 1146 ft.

VALENCIA—Rio Puerco Oil Co.'s N. M.-Ariz. Land Co. 2, ne 13-6n-2w, wtg pipe 3145 ft. Acme Oil Co.'s N. M.-Ariz. Land Co. 1, 26-6-3, stand 4741 ft. Harlan et al's Harlan 1, 5-6n-2e, fsg 4330 ft.

WYOMING

BIG HORN—P. & R. Gov't. 3, 24-56-98, sd for orders, td 4234 ft. Westland Oil, Inc., 1, 24-54-95, gas at 510 ft. Wisconsin Holdings 5-55-97, sd 665 ft. Yellowstone Pet. Co.'s 1, 7-57-97, dr 3912 ft.

CARBON—Red Feather Oil Co. 1, 35-13-92, spud.

FREMONT—Texas Prod. Co.'s State 1, 36-34-95, more gas at 4467 ft. P. & R.'s 1, 33-34-92, dr shale 3780 ft.

HOT SPRINGS—Midwest's Weeks 8, 6-55-98, dr 2820 ft. Ohio's Smith 1, 8-46-99, wait for rotary 4403 ft. Gebo Con's 1, se 23-44-95, dr 1416 ft, gas and oil showing.

JOHNSON—United Oil Co.'s 7-47-92, sd 1700 ft.

LINCOLN—Midwest's Grey's River 25-37-117, dr 2275 ft. Mtn. Oil Corp.'s 1, 36-25-115, fsg 815 ft. Wyo. Prod. Co.'s 1, 14-24-113, res 370 ft.

NATRONA—Midwest's Midway 1, se 23-35-79, cem 5187 ft. Golden West Oil Co.'s 1, 36-36-11, spdg. Cuyler Oil Co. sw 24-36n-85w, mvg in.

PARK—P. & R.'s Pitchfork 1, 14-48-102, dr 2744 ft, about 2500 ft oil in hole. Resolute Oil Co.'s 1, 17-27-101, dr bel 6200 ft. Cody Pet. Co.'s Danker 1, se 22-57-98, skd rig, td 3300 ft. C. M. Johnson's 1, 11-49-102, dr 4208 ft.

SWEETWATER—Vermillion Oil Co.'s 1, se 16-12-99, stand with 10-in. cem 2650 ft.

SHERIDAN—Pfeiffer et al', 6-57-84, location.

WESTON—Gose Synd's 1, 28-47-65, res 4800 ft. Updike et al's Fiddler Creek 1, 11-45-64, dr bel 1200 ft.

MONTANA

CASCADE—Andover Oil Co.'s Floweree 1, se 20-21-2w, dr bel 500 ft.

FERGUS—Melton Corp's 1, se 24-21n-17e, resum at 2700 ft.

GALLATIN—California Co.'s Ringling 1, se 35-5n-7e, abd 5104 ft.

GLACIER—Glacier Oil Co.'s Omsberg 1, nw 35-35-5w, try land 8-in. past lost tools, td 1440 ft. Texas Prod. Co.'s 1, 13-35n-6w, dr 1125 ft. Fulton Pet. Corp.'s Blackfoot 1, ne 28-36n-12w, rigged. O'Neill's Michaelson 1, se 28-36-5w, dr 2550 ft. B. & H. Oil Co.'s Haines 1, se 2-34-6w, wait for pipe 400 ft. Jeffries-Haire, Dawson 1, ne 7-31-12w, dr 150 ft.

GOLDEN VALLEY—Golden Valley Oil Co.'s 1, se 28-6-22, dr bel 1200 ft.

LIBERTY—Square Deal Oil Co.'s Federal Land Bank 1, 1-32n-7e, stand 2565 ft, ready to res. Northland O&G Co.'s Yurman 1, 36-33n-6e, run cas 2290 ft. Sunburst O&R Co.'s McLaren 1, se 9-37-6e, dr bel 2450 ft. Utopia Oil Co.'s Eleanor Ass'n. 1, sw 11-33-6e, reaming, td 2330 ft.

MUSSELSHELL—Minnesota - Flatwillow's Ivanhoe Dome test, 7-11-31 to res.

PETROLEUM—Minnesota - Flatwillow's 2, 5-13n-25e, rig burned down, td 1840 ft. Oregon-Flatwillow's 1, 3-13n-26e, td 200 ft.

PONDERA—Miller Bros. Bruins 1, nw 17-28n-1w, rig up. Oil Well Dr. Co.'s Van Daele 1, ne 35-30-3w, fsg tools at 4215 ft.

ROSEBUD—Prairie O&G Co.'s N. P. 1, 9-10n-39e, sd 2310 ft. Prairie's 1, 26-10-39e, abd at 2600 ft. Prairie's N. P. 4, 28-10n-38e, spd 260 ft. Prairie's 1-X 26-10-39e, dr 501 ft.

SHERIDAN—Sheyenne O&G Co.'s 1, nw 15-36n-53e, to res at 1400 ft.

TETON—Andover Oil Co.'s Carlson 1, ne 5-24-n-4w, td 300 ft. Newman et al's Fitzgerald 1, 26-32n-1w, rig up. Rocky Mtn. O&G Co.'s Salmond 1, ne 4-23n-8w, stand 1700 ft. Midwest Ref. Co.'s Scott 35, ne 2-26n-6w; dr 575 ft.

TOOLE—Anaconda Pet. Co.'s Bartholte 1, nw 19-36n-2w, to dd from 1600 ft. John Thomas et al's Buckley 1, ne 1-37-4w, td 1645 ft. Mont. Oil Corp.'s Beaupre 1, se 32-37-1w, water at 2215 ft. International Roy. Hold. Co.'s Henry 1, se 26-35-3e, dr 2200 ft. Vantana Oil Co.'s Peterson 1, sw 22-34-4w, dr 1100 ft.

VALLEY—T. P. Jones' 1, nw 31-37-38e, water at 1100 ft to dd.

OKLAHOMA

WOODS COUNTY—T 28n, R 16w, Sec. 23, Peerless Oil Co., Cromwell 1, c nw ne hfw 6188-6211 ft, td 6235 ft, dry and abn. T 27n, R 16w, Sec. 33, Sinclair's Share 1, c ne sw, td 7136 ft. r.u.s.t., slight show oil 7137-38½ ft.

ALFALFA COUNTY—T 27n, R 11w, Sec. 12, Smith Bros.' Forbes 1, nec se nw nw, td 1420 ft, sd.

KAY COUNTY — T 27n, R 2e, Sec. 17, Blankenship et al's Hansen 1, sw nw sw, td 3613 ft water, pb to 3580 ft. show 25 bbls, 5m gas.

HARPER COUNTY—T 26n, R 24w, Sec. 14, Sinclair's Howell 1, c sw sw, td 8590 ft, pb to 6700 ft, shot 5 qts. 7M gas, fsh pipe.

GRANT COUNTY—T 26n, R 5w, Sec. 25, Bu-Vi-Bar et al's Buret 1, c sw, dr 2355 ft.

KAY COUNTY—T 26n, R 1w, Sec. 23, Boucher et al's Jefferson 1, nec sw, rig.

HARPER COUNTY—T 25n, R 20w, Sec. 12, Empire's Brice 1, sw c ne sw, fsh 5570 ft.

WOODS COUNTY—T 25n, R 15w, Sec. 10, Bu-Vi-Bar et al's Fee 1, sec sw, sd 6104 ft.

GRANT COUNTY—T 25n, R 4w, Sec. 22, Cowden's Vollmer 2, nec se ne sw, tools lost 5640 ft, sd.

ALFALFA COUNTY—T 24n, R 11w, Sec. 14, J. V. Bailey et al's Acre 1, c sw ne, salt water 4649 ft, 8-inch 4660 ft, woc.

GARFIELD COUNTY—T 24n, R 6w, Sec. 9, Pulse & Beamer's White 1, sec nw, sand 5566-70 ft, hfw, dr 5590 ft.

WOODWARD COUNTY—T 23n, R 17w, Sec. 23, Transcontinental & Prairie's Wilbur 1, nec, sd 7425 ft.

GARFIELD COUNTY—T 23n, R 4w, Sec. 32, Shell et al's Loomis 1, c nw nw, show oil and water 6132 ft, hfw 6222 ft, td.

WOODWARD COUNTY—T 21n, R 19w, Sec. 15, Burgoyne Bros.' Merklin 1, swc se ne, sd 1910 ft.

BLAINE COUNTY—T 19n, R 10w, Sec. 13, Washema Pet. Co.'s Phillips 1, c nw sw, 3220-25 ft, hfw, sd 3730 ft for water.

LOGAN COUNTY—T 18n, R 3w, Sec. 33, Healey et al's Quier 1, sec sw, sd 3970 ft. T 17n, R 4w, Sec. 34, Eason Oil Co.'s Katchor 1, swc ne sw, dr 2780 ft. T 17n, R 1e, Sec. 22, Prairie & Slick's Simms 1, ne sw se, 4750 ft td, cemented back to 1240 ft, woc.

KINGFISHER COUNTY — T 16n, R 7w, Sec. 6, Gault Brown Nel Boch, c nw se (owdd) td 8022 ft, sd.

LOGAN COUNTY—T 16n, R 1w, Sec. 33, Prairie & Slick's Morgan 1, c nw ne, dr 5340 ft.

PAWNEE COUNTY—T 23n R 5e, Sec. 15, Cochren et al's McFadden 1, nec sw, rig.

OSAGE COUNTY—T 23n, R 6e, Sec. 28, Western American's 1, nwc se, hfw 1830-94 ft, reaming 6-inch 2240 ft.

PAWNEE COUNTY—T 22n, R 3e, Sec. 26, Wentz' Lillie 1, sec sw ne, dr 1530 ft. T 20n, R 5e, Sec. 22, J. M. Scott et al's Jones 1, swc ne, dr 1757 ft.

PAYNE COUNTY—T 18n, R 4e, Sec. 6, F. M. Marrs et al's Tietz 1, sw nw se, lcn.

LINCOLN COUNTY—T 17n, R 2e, Sec. 28, Thurman, Deaner et al's Stufflebeam 1, nec sw, dr 4570 ft. T 16n, R 2e, Sec. 35, T. B. Slick's Hammer 1, se sw nw, Wilcox 5370-5474 ft, td 6102 ft dry and abn. T 14n, R 6e, Sec. 5, Atlantic's Ryan 1, sec nw, rust 3125 ft. T 13n, R 4e, Sec. 2, Magnolia's Winship 1, nec sw, dr 4560 ft.

OKFUSKEE COUNTY—T 12n, R 9e, Sec. 36, Henry Oil Co.'s Harjo 1, nwc, dr 3890 ft. T 12n, R 10e, Sec. 3, Sheppard et al's Sheppard 1, se nw sw, td 3690 ft, water sd.

MUSKOGEE COUNTY—T 11n, R 19e, Sec. 2, E. Mills et al's Martin 1, nwc se sd 1001 ft.

PITTSBURGH COUNTY — T 9n, R 16e, Sec. 32, Pattison et al's McDuff 1, sw nw se, Wilcox 5556-60 ft, sd.

HASKELL COUNTY—T 9n, R 18e, Sec. 10, Marion Oil Co.'s Sanders 1, nw ne sw, 2m gas 1800 ft, sd 2692 ft.

OKLAHOMA COUNTY—T 14n, R 3w, Sec. 32, Mid-Kansas' Messer 1, swc, td 6344 ft, running 9-inch. T 13n, R 3w, Sec. 17, Prairie & Slick's Dills 1, c se nw, dr 6796 ft. Sec. 35, Magnolia & Ramsey's Johnson 1, nec sw, dr 7170 ft. T 13n, R 1w, Sec. 13, T. B. Slick's Martin 1, c nw nw, td 6965 ft, dry and abn. T 12n, R 4w, Sec. 17, C. F. Cuniff, Trustee's, St. Joseph Orphanage 1, sw ne sw se, td 6530 ft, dr. T 11n, R 2w, Sec. 3, Ryan Consolidated's Lawton 1, nec nw, dr 6882 ft.

CLEVELAND COUNTY—T 6n, R 1e, Sec. 20, Harris & McNeal's Corbett 1, sw ne, td 6518 ft, 6-inch 6330 ft, rur.

OKFUSKEE COUNTY—T 11n, R 8e, Sec. 11, Carter et al's Keys 1, sw ne sw, dr 2650 ft.

HUGHES COUNTY—T 9n, R 12e, Sec. 29, Chas. Cannady's Kanard 1, nwc sw, dr 4493 ft.

POTTAWATOMIE COUNTY—T 8n, R 3e, Sec. 3, The Texas Co.'s Knight 1, swc se, dr 1400 ft. T 8n, R 4e, Sec. 11, Lippa Drlg. Co. et al's Hilinerich 1, nec nw, dr 2602 ft. T 6n, R 4e, Sec. 30, Deep Rock's Marshall 1, swc dr 500 ft.

SEMINOLE COUNTY—T 6n, R 7e, Sec. 9, Neal & Milton's Thomas 1, nw ne sw, cellar.

ROGERS COUNTY—T 12n, R 24w, Sec. 23, Bucy & Stone's Williams, c sw, sd 2243 ft. T 11n, R 26w, Sec. 4, J. J. Book's Davis 1, c nw ne, sd 2840 ft.

BECKHAM COUNTY—T 10n, R 22w, Sec. 29, J. F. Cuniff et al's Brower 1, c nw, sd 3793 ft.

CANADIAN COUNTY—T 10n, R 6w, Sec. 1, J. V. Bailey's Robinson 1, c ne nw, sd 150 ft.

CADDO COUNTY—T 9n, R 13w, Sec. 18, J. J. Right & Shell's Boys 1, nec, lcn.

BECKHAM COUNTY—T 8n, R 22w, Sec. 20, Carson et al's Denby 1, sw se ne, 1625 ft cemtg bad hole.

WASHITA COUNTY—T 8n, R 14w, Sec. 1, H. S. Kaufman's Nelson 1, nec, td 1275 ft, dry and abn.

GREER COUNTY—T 7n, R 22w, Sec. 1, Roy Good & Dowell's Cliffel 1, nwc, dr 1265 ft. T 6n, R 24w, Sec. 17, I. T. I. O. et al's Fee 1, c ne, dr 2405 ft.

CADDO COUNTY—T 6n, R 11w, Sec. 24, Simms Pet. & J. R. Wrightsman's 1, sec nw, rig.

HARMON COUNTY—T 4n, R 24w, Sec.— Harmon-Tex Oil Co.'s Headly 1, nec, sd 2325 ft.

COMANCHE COUNTY—T 3n, R 9w, Sec. 3, Okla. Natl. Gas Co.'s Doebel 1, nec sw sw sw, sd 1450 ft.

COTTON COUNTY—T 4s, R 13w, Sec. 2, Shasta Oil Co.'s McMillian 1, c se se, dr 500 ft.

HUGHES COUNTY—T 5n, R 10e, Sec. 30, Erwin et al's Jones 1, sec ne, 6-inch at 4275 ft. T 5n, R 11e, Sec. 15, J. J. Wright's Roberts 1, sec sw, gas 915-18 ft, sd 1645 ft.

GARVIN COUNTY—T 4n, R 3e, Sec. 10, C. R. Obermyer's Stricklin 1, nec sw, sd 2880 ft. T 3n, R 4w, Sec. 5, McMin & Arrowsmith's Carson 1, nec nw, rig and tools.

COAL COUNTY — T 3n, R 9e, Sec. 26, Blackwell's Dunn 1, nwc, dr 3060 ft.

ATOKA COUNTY—T 3s, R 10e, Sec. 18, Broolshire et al's Guinn 1, nwc, sd 80 ft.

CARTER COUNTY—T 4s, R 2e, Sec. 32, Tex-Okla. Drlg. Co.'s Anderson 1, se ne se, sd 2580 ft.

LOVE COUNTY—T 6s, R 3w, Sec. 20, Harry Hobbs' Steel 1, sw c ne sw, sd 3130 ft.

BRYAN COUNTY—T 6s, R 7e, Sec. 8, G. L. Pace's Hicks 1, swc nw, dr 500 ft. Sec. 14, W. A. Johnson's Ussery 1, sec, sd 325 ft. T 6s, R 9e, Sec. 35, O. P. Bush's Commerce Trust Co. 1, nec, sd 600 ft.

KANSAS

STEVENS COUNTY — Barrington et al, Creamer 1, c nw 2-35-39w, 10-inch 1405 ft, dr 2000 ft. Argus Gas Co.'s Ehrhard 1, c nw, 11-35-39w, dr 625 ft.

MORTON COUNTY — Argus Gas Co.'s Wiley 1, c ne, 4-35-37w, dr 480 ft.

STEVENS COUNTY—Argus Gas Co.'s Irwin 1, c se, 10-35-39w, ru and sd.

SUMNER COUNTY — Davidson et al's Strickland 1, sw se 12-35-1w, rig.

MORTON COUNTY—Hydraulic Oil Co.'s State Land 1, nw se, 22-34-43w, dr 2308 ft. Argus Gas Co.'s Watson 1, c ne, 37-34-40w, 8-inch 2440 ft rust.

STEVENS COUNTY—Argus Gas Co.'s Lihon 1, c ne 2-34-39w, 8-inch 2516 ft, rust; Dreibelbis 2, c nw, 9-34-39w, 8-inch 2586 ft, rust; Tillet 1, c sw 21-34-39w, 8-inch 2514 ft, rust.

MORTON COUNTY—Argus Gas Co., Sullivan 1, c nw 29-34-39w, dr 1500 ft.

STEVENS COUNTY—W. Sidwell et al's Kelly 1, sw ne 16-34-38w, sd 1600 ft. Argus Gas Co.'s Hershey 1 c nw, 26-34-37w, ru; Knier 1, c sw 27-34-37w, dr 2230 ft; Ridpath

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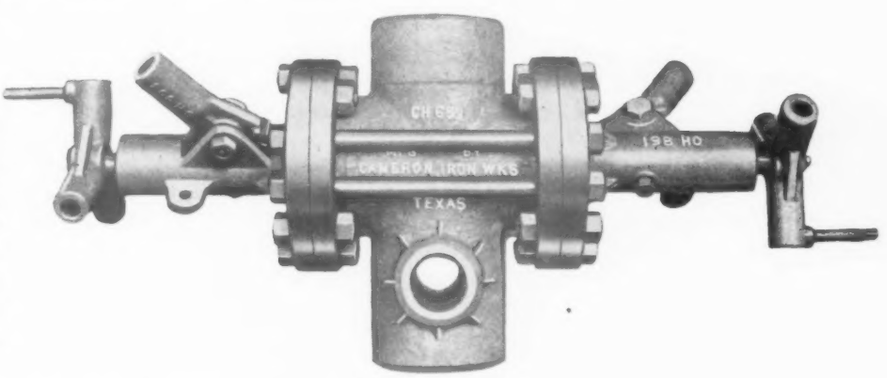
No complicated equipment or hook-ups are necessary. No undue risks are present. It is the outstanding proven method of performing this important work. It has been used, successfully, on hundreds of wells without loss of life or equipment and against pressures that in some cases, were as high as 1750 pounds.

Two C-I-W Tubing Control Heads, with a master gate valve between are mounted to the last string of casing. Snubbing lines are run from the traveling block, through pulleys at each side of the derrick floor and then to the ears of the traveling snubber which forces the tubing into the well when an upward force is applied to the traveling block. A stationary snubber is mounted into the upper threaded opening of the upper Control Head. Both snubbers are equipped with inverted slips to allow couplings to pass very easily.



The steel rams with special packing, pack-off and suspend the tubing while it is being forced into the hole. By alternately opening and closing the rams in the two heads the couplings are passed into the well without loss of oil or pressure.

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1, c se 27-34-37w, dr 710 ft; Gibbons 1, c se, 29-34-37w, dr 988 ft; Harrison 1, c sw, 30-34-37w, dr 1000 ft.

SUMNER COUNTY—Disney et al's Fey 1, c e½ se, 14-34.1w, rig.

MORTON COUNTY—Argus Gas Co., Burton 1, c se, 11-33-40w, 8-inch 2428 ft, dr 2545 ft; Mangles 1, c se, 4-33-39w, 8-inch 2527 ft, dr 3250 ft; Morgan 1, c nw, 8-33-39w, rog; Garber 1, c se, 18-33-39w, 2459 ft, rust.

STEVENS COUNTY—Agate and McNabb's Gregory 1, c nw 19-33-38w, 8-inch 2470 ft, rust.

BARBARA COUNTY—Barbara Oil, Hamblin 1, c sw nw 24-33-13w, 4487-4508 ft, 30M gas, fsh.

SUMNER COUNTY—Magnolia, Shriner 1, nw sw, 9-33-2e, td 1980 ft, fsh tools.

CHAUTAUQUA COUNTY—Leighty et al, Carr 1, c sw se 5-33-9e, mach.

STEVENS COUNTY—McNabb & Mid-Kansas, Rinehart 1, c ne, 23-32-39w, rig. Mangle, Youngren 1, c se nw, 24-32-39w, sd 2523 ft.

BARBER COUNTY—Phillips & Robertson, Powell 1, c se se 11-32-10w, G&SO 4409 ft, co.

COWLEY COUNTY—Tom Fine, Boyd 1, nw ne, 32-32-4e, 12-inch 1265 ft, dr 2130 ft.

STEVENS COUNTY—Fredell Const. Co., Persinger 1, c se, 22-31-38w, 8-inch 2446 ft, rust. McNabb et al, Porter 1, c nw, 4-31-37w, dr 1950 ft.

HARPER COUNTY—Beeler et al, Bear 1, c ne, 21-31-6w, sd 1830 ft.

ELK COUNTY—Croft & Frazier, Keys 1, se ne, 26-31-6w, 10-inch 735 ft.

KIOWA COUNTY—Phillips-Prairie, Bean 1, ne se, 10-30-17w, dr 3375 ft.

GRANT COUNTY—McKenna et al, Sullivan 1, ne cor 12-29-28w, sp and sd.

KINGMAN COUNTY—Slick, Pryor & Lockhart, Wetherall 1, ne sw, 36-29-6w, ru.

KIOWA COUNTY—McKenna et al, Ralston 1, c ne, 14-28-20w, ru and sd.

BUTLER COUNTY—Farrell et al, Sutter 1, nw c, 18-28-7e, dr 610 ft.

SEDGWICK COUNTY — Newman, Inc., Bawly 1, c se nw ne, 2-27-2e, dr 2538 ft.

GREENWOOD COUNTY — Mallory et al, Denchfield 1, se nw, 12-27-9e, sd 1810 ft. F. Konkay et al, Rook 1, nw ne ne, 7-27-12e, sd 1836 ft.

PRATT COUNTY—Wilcox, Unknown 1, sw nw, 7-26-15w, 8-inch 4005 ft dr 4099 ft.

RENO COUNTY—Valerius et al, Stevens 1, c ne se ne, 6-26-7w, wrkng 6-inch td 3830 ft. Tom Palmer & Phillips Pet., Horsch 1, ne se, 14-26-5w, dr 3215 ft.

SEDGWICK COUNTY — Tavender et al, McLean 1, se sw se, 23-26-1w, sd 975 ft.

BUTLER COUNTY—Gypsy, Osborne 1, nw se, 22-26-3e, dr 1980 ft Pioneer Pet. Co., Crist 1, nw se, 33-36-4e, 2008-65 ft so, dr 2685 ft. Liggett, Guanther 1, c se ne nw, 29-26-7e, TL 2750 ft.

FORD COUNTY—Swain et al, Kentherne 1, c nw, 21-25-24w, sd 3575 ft.

RENO COUNTY—Shell et al, Popp 1, nw c, 11-25-5w, dr 1580 ft.

GREENWOOD COUNTY — Harwood Oil, Loy 1, sw ne, 20-25-10e, dr 1045 ft. Staats et al, Swan 1, ne nw, 3-25-12e, spd and sd. Bundy-Smith & O'Neil, Ford 1, ne nw, 28-25-13e, spd and sd.

PAWNEE COUNTY—Skelly, Milhouse 1, c se, 34-23-17w, T. Viola 4510 ft, hfw 4605 ft, dr 4607 ft.

RENO COUNTY—Study, Hawry 1, ne sw, 1-23-4w, 8-inch 2450 ft, dr 2760 ft.

BUTLER COUNTY — McCullough-Empire, Lilley 1, c sw nw nw, 23-23-5e, rig.

STAFFORD COUNTY—Midwest, Richardson 36, se c, 36-22-12w, dr 2955 ft. Boucher Groves 1, ne c, 9-22-11w, td 2730 ft, ur 6-inch Boucher, Christensen 1, nw c, 22-22-11w, 8-inch 2774 ft, dr 3080 ft.

RENO COUNTY—United Pet., Houston 1, nw c, 4-22-10w, dr 2235 ft.

COFFEY COUNTY—Ritchey et al, Rassenmacker 1, c se, 36-22-13e, 1940-55 ft, hfw, sd 2165 ft. McGregger et al, Wood 1, c ne nw sw, 20-22-15e, dr 500 ft. Roberts et al, Hay 1, sw se nw, 32-22-15e, td 1100 ft, 8-inch collapsed.

RICE COUNTY—United Pet., Wellman 1, ne c, 29-21-9w, rog.

McPHERSON COUNTY—Harry Skelly, et al, Neufeldt 1, se ne, 19-31-3w, rig.

MARION COUNTY—Magnolia, Davis 1, se nw, 18-21-2e, dr 1805 ft.

RICE COUNTY—Miller & Brown, Schwartz 1, c sw nw sw, 10-20-10w, td 2988 ft ur 6-inch 2825 ft. Gypsy et al, Koch 1, 1320 ft s and 440 ft w n¼ cor 35-20-9w, 10-inch 1907 ft, dr 2435 ft. Hershey, Golden & Skelly, Brandenstein 1, c sw 10-19-10w, rog. Hofhne, Lee & Shell, Sled Farm Corp. 1, c sw, 33-19-6w, 8-inch 2750 ft, dr 2930 ft.

MARION COUNTY—Marshall et al, Higgens 1, ne c, 33-19-5e, rig.

LYON COUNTY—Griffith et al, King 1, nw c, 8-19-10e, 12-inch 910 ft, sd.

RUSH COUNTY—Syndicate Oil, Mohr 1, c sw, 2-18-16w, dr 3200 ft. Syndicate Oil, Tannen 1, c sw, 11-19-16w, lcn.

RICE COUNTY — McPherson Gas Co. & Shell, Jennings 1, c ne sw nw, 29-18-8w, sd 3487 ft.

McPHERSON COUNTY—Simmons, Canary et al, Bishop 1, c nw sw, 15-19-1w, td 2990 ft, ur 8-inch.

RUSH COUNTY—McPherson, Brack 1, c nw, 24-17-16w, dr 3100 ft.

ELLSWORTH COUNTY—Slick et al, Hecken 1, nw c, 24-17-10w, dr 1250 ft.

MARION COUNTY — Dixie & Arkansas Fuel, Hacker 1, nw ne, 6-17-1e, dr 1500 ft.

MIAMI COUNTY—Clark et al, Vaughn 1, se sw, 28-17-22e, sd 1200 ft.

RUSH COUNTY—Prairie, Leiker 1, c nw sw sw, 5-16-13w, dr 1175 ft.

BARTON COUNTY—Slick & Prairie, Rude 1, sw c, 11-16-3w, td 2185 ft, ur 10-inch.

MORRIS COUNTY—Urschell et al, Scott 1, ne sw, 6-16-6e, sd 2420 ft.

MORRIS COUNTY—Hankenson et al, Sessum 1, sw se, 24-16-9e, rig.

ELLIS COUNTY—Rush Oil Co., Gatewood 1, nw, 4-15-20w, sd 3750 ft.

RUSSELL COUNTY—Streeter & Stearns, Mitchell 1, se c, 6-15-14w, dr 2195 ft. Slick et al, Bernick 1, se sw, 23-15-13w, sd 3322 ft. Empire, Herbel 1, c nw ne sw, 26-14-14w, so 2665 ft, dr 2840 ft.

OSAGE COUNTY—Riggs & Smith, Wood 1, c se nw, 21-14-15e, dr 410 ft.

DOUGLAS COUNTY — Steinbushel et al, Unknown 1, sw ne nw, 34-14-21e, sd 1110 ft.

GOVE COUNTY—Valerius et al, Todd 1, nw c, 24-13-27w, dr 2100 ft.

ELLIS COUNTY—Streeter & Stearns, Leiker 1, sw ne, 26-13-20w, 3864 ft, hfw, dr 3938 ft.

RUSSELL COUNTY — Austin Drlg. Co., Rockefeller 1, se c, 6-13-12w, sd 1884 ft.

SALINE COUNTY—Twin Mounds Oil Co., Weis 1, c w½ ne nw, 20-13-4w, sd 2042 ft.

DICKINSON COUNTY—Severs et al, Lerringood 1, ne sw, 13-13-2e, 2205 ft, td, cr hole. Krooger et al, Dische 1, c nw ne ne, 17-13-2e, sd 2943 ft hfw.

PAWNEE COUNTY—Central Commercial, Helms 1, se ne, 2-12-20w, 8-inch 2940 ft, td 3140 ft, ur 8-inch.

DICKINSON COUNTY — E. H. Morgan, Whitehair 1, nw se, 9-12-1e, td 2950 ft, pulling 5-inch.

ELLIS COUNTY—Byrens et al, Fisher 1, nw se, 4-11-20w, sd 1000 ft.

RUSSELL COUNTY—Gilbreath et al, Bratton 1, c ne, 33-11-13w, sd 1010 ft.

ROOKS COUNTY — Streeter & Stearns, Conger 1, c se nw ne, 16-10-16w, sd 250 ft.

GRAHAM COUNTY—Gulf Coast Oil, St. Johns 6, ne sw se, 27-8-25w, 8-inch 4360 ft, td 4370 ft, rust.

CLAY COUNTY—Chrisler, Tivier 1, sw c, 19-8-3e, spd and sd.

MARSHALL COUNTY—Swicker & Simcox, Remple 1, c n½ nw, 22-4-9e, dr 1245 ft.

WASHINGTON COUNTY—Simcox, Perwell 1, nw se ne, 16-3-3e, dr 510 ft.

MARSHALL COUNTY—Blazier et al, Runkel 1, se sw, 13-2-6e, spd and sd.

WEST TEXAS

Company, Well and Location		Initial Production Bbls.	Depth
ANDREWS COUNTY—			
Deep Rock Oil Co. et al, B. L. King-Miles 1	*		4765
ECTOR COUNTY—			
Penn Oil Co.-Devonian Oil Co., Goodman 1	*		4399
GAINES COUNTY—			
Humble O&R Co., Carswell 1	*		4835
JONES COUNTY—			
F. E. Shaheen-Prairie O&G Co., S. W. King 1		50	1999
LYNN COUNTY—			
Hart Oil Corp.-Geo. McCamey, Edwards 1	*		5284
PECOS COUNTY—			
Hussman Oil Co., Estes 1	*		1680
STERLING COUNTY—			
Fred Turner-Mann-Wohlford, Reed 1	*		2202
TERRY COUNTY—			
Penn Oil Co., Unit Plan, Carlisle 1	*		5001

ANDREWS COUNTY—Deep Rock Oil Co. et al's A. R. King 1, flows 25 bbls daily, td 4454 ft; W. J. Mathis 1, elev 3193 ft, top salt 1730 ft, swab dry after two shots, td 5088 ft. Fuhrman Pet. Corp.'s W. T. Ford 1, elev 3186 ft, killed 30 mil ft dry sulphur gas to fsh tools 4062-68 ft. Humble-Penn-Atlantic's H. M. Wilson 1, elev 3347 ft, top salt 1685 ft, top brown lime 4177 ft, sd 4650 ft. Martin-Maer-Kell's Meadors 1, dr 1710 ft.

BREWSTER COUNTY—Trans-Pecos O&G Co.'s Jones 1, elev 3073 ft, sd 2345 ft.

COKE COUNTY—Arkansas Fuel Oil Co.-Dixie Oil Co.'s Stepp 1, dr hfw 3975 ft.

CONCHO COUNTY—W. C. Beasley et al's Sam Waring 1, sp and sd. A. W. Turner et al's Brosig 1, dr 1500 ft.

CRANE COUNTY—Cranfill Bros. & Gulf Prod. Co.'s Tubbs 1, elev 2526 ft, top salt 505 ft, top white lime 2445 ft, fsh tools 3993 ft. C. C. Duffey et al's Cowden 1-C, top salt 560 ft, dr 645 ft. Sun Oil Co.'s State Bank 1, top brown lime 2856 ft, trace oil 3015-24 ft, dr 3150 ft.

CROCKETT COUNTY — California Co.'s Shannon 3, top salt 1105 ft, top lime 2410 ft, dr 2455 ft. Magnolia Pet. Co.'s Hoover 1, elev 2412 ft, top salt 660 ft, top lime 1890 ft, dr 5800 ft; Hoover 2, fsh 280 ft.

CULBERSON COUNTY — Grisham-Hunter Corp.'s W. D. Garren 2, sd 1520 ft. W. L. Kornrumpf et al's Garren 1, sd 850 ft.

ECTOR COUNTY—C. P. Davis et al's Hendrick 1, sd 4012 ft. Penn Oil Co.'s Kloh 1, dd, top anhydrite 1590 ft, top salt 1655 ft, dr 1965 ft. Southern Crude Oil Pur. Co.'s Cowden 1, elev 3047 ft, dr anhydrite 3850 ft. Sunray Oil Co.-Llano Oil Co.'s Jones 1, swabbed dry after second shot, td 3823 ft. H. F. Wurtz et al's Ibbetson 1, elev 2840 ft, top salt 865 ft, sd 2375 ft.

EDWARDS COUNTY—Phillips Pet. Co.'s Holman 2, set cas 4120 ft.

FISHER COUNTY—Cranfill-Reynolds Co.'s Barrett 2, swab 318 bbls oil 12 hrs. at 3100-09 ft; Flannigan 2, dr 2965 ft. Midwest Explo. Co.'s Decker 1, dr 3030 ft. Roeser-Pendleton, Inc.'s, Steele 1, testing production 3192-3205 ft. The Texas Co.'s Teagarden 1-A, dr 3065 ft.

GARZA COUNTY—H. C. Cate & Mel Richard's Stoker 1, elev 2591 ft, top salt 935 ft, top lime 2365 ft, co 3045 ft.

GLASSCOCK COUNTY—Ed. Timberlake et al's Meek 1, elev 2575 ft, top lime 2670 ft, fsh 2965 ft. World Oil Co.'s McDowell 3-C, elev 2537 ft, co 680 ft.

TOM GREEN COUNTY—Belding & Dutton's J. R. Norsworthy 1, sp and sd. Mintex Oil Co.'s Campbell 1, dr 490 ft. Phillips Pet. Co. et al's Jennings-Gulden 1, fsh 3275 ft.

HOWARD COUNTY—Greene Prod. Co. & Getty Pet. Corp.'s Denman 1, rig. Meriwether Oil Co.'s Smith 1, elev 2590 ft, dr 3055 ft.

IRION COUNTY — J. E. Bristow et al's Nutt 1, sp and sd. Carl Cromwell et al's Tankersley 1, dr 1345 ft. Straughn & Texannati Oil Co.'s Nutt 3, dr 1365 ft. F. E. Webb et al's W. H. Williams 1, lcn. P. H. Williams et al's Ashe 1, sd 8900 ft; Noelke 1, dr 855 ft.

JONES COUNTY—Gibson & Johnson's Hudspeth 1, sd 2575 ft. C. R. Pope et al's Swann 1, rig. F. E. Shaheen & Prairie's S. W. King 1, elev 1652 ft, comp. pumping 50 bbls oil 1994-99 ft.

LOVING COUNTY—California Co.'s Reagan 2, top salt 735 ft, dr 3020 ft; Reagan 3, top salt 726 ft, dr 2525 ft; Reagan 4, dr 1000 ft. Dixie Oil Co.-Phillips Pet. Co.'s Johnson 1, elev 2819 ft, salt 992 to 4130 ft, dr 4435 ft. A. R. Eppenauer Drlg. Co. & Young's Allen 1, sp and sd. Geo. A. Henshaw et al's Reagan-McElvain 1, dr 415 ft; Russell 2, salt 755 to 4038 ft, top black lime 4227 ft, swabbed 20 bbls oil daily after shot, td 4280 ft. L. E. Lockhart et al's Wheat-Ramsey 1, dr 3310 ft. Lockhart & Co.'s Bowen-Wells 3, sd 3385 ft; Hubbard 6, rig; Lepp 2, sp and sd. Miller-Burge-Healy's Chapman 1, top salt 750 ft, dr

1900 ft. Joe Rush et al's Jim Wheat 1, top salt 785 ft, dr 2375 ft. Lee O. White et al's Russell 1, sd 792 ft.

MENARD COUNTY—W. C. Barnett et al's Callan 3, dr 1250 ft. Jas. L. Duffy-Panhandle Ref. Co.'s Eckhardt 2, dr 3140 ft. L. G. Priest et al's J. P. Sorrells 1, elev 2279 ft, dr by tools 2415 ft.

PECOS COUNTY—Barnes et al's Sanford 1, sd 750 ft. E. L. Chapman et al's Streety 1, elev 2653 ft, sd 2200 ft. Curry & Eakin's Pecos Valley 1, dr 790 ft. C. L. Dittman Drlg. Co. et al's H. J. Eaton 1 and 2, lcns; H. J. Eaton (Sec. 37) lcn; J. S. Jackson 1, lcn. Humble O&R Co.'s Kokernot 1, elev 3595 ft, dr in sulphur water 2633-65 ft; Mrs. C. L. Thompson 1-B, sp. Independent O&G Co.'s McDonald 4, sd 1705 ft. Magnolia Pet. Co.'s L. L. Byrne 1, dr 235 ft. Messenger et al's Butz 1, sd 740 ft; Byrne 2, sd 1367 ft. J. R. Miller et al's Bennett 1, sd hfw 1650-1700 ft. J. D. O'Mara et al's Bennett 1, sd 1230 ft. Oregon Oil Corp. et al's Yates 2, elev 2565 ft, top salt 710 ft, dr 2310 ft. O. J. Perren et al's Eaton 2, sd 1323 ft; Jackson-Pure 1, sd 1445 ft. Pure Oil Co.'s Harrison 1, dr anhydrite 1225 ft. Rio Grande Oil Co.'s Webb 1, rig.

PRESIDIO COUNTY—Brite Prod. Co.'s L. C. Brite 4, elev 4536 ft, sd 2630 ft.

REAGAN COUNTY — Big Lake Oil Co.'s University 3-C, sd repairing pump in sandy-lime 8863 ft; University 4-C, flowed 87 bbls oil and dr by junk 8220 ft; University 5-C, dr 2615 ft; University 179, co 4003 ft.

REEVES COUNTY—The California Co.'s Kloh 1, trace oil 3580-90 ft, fsh tools 3616 ft. May & Milton's J. B. Ellis 1, sd 1030 ft. Salsbury & Gregory's Bell 1, sd 260 ft. Lee O. White et al's Mrs. Lizzie Hersheusen 1, dr 4105 ft.

RUNNELS COUNTY — Boyce & Lamar's Lange 1, elev 1844 ft, sd 2643 ft. Chas. Dutton et al's G. W. Dean 1, sd hfw 1255 ft.

SCHLEICHER COUNTY—Delmar Oil Co.'s O'Harrow 1, ur 4060 ft. Phillips Pet. Co. et al's J. A. Whitten 1, elev 2333 ft, pb from salt water 6880 ft and shot but dry. Munger-Wilson Oil Co.'s Page 1, elev 2270 ft, fsh 4912 ft. Paul Teas & Walter Gant's Allison 1, dr 3010 ft. J. D. Wesner et al's R. E. Ratliff 1, sd 750 ft. Westyde Inv. Co. & Moody Corp.'s C. L. Meador 1, lcn.

SCURRY COUNTY—J. G. Armand & Camp Springs O&R Co.'s Strayhorn 1, sd 470 ft; Quinn 1, elev 2316 ft, sd 4374 ft. D. H. Byrd & Harmon's Murphy 1, elev 2298 ft, dr 3415 ft. R. B. Pender O&G Co.'s Davis 1, dr 4815 ft. Transcontinental-Vacuum Oil Co.'s Peckham 1, elev 2155 ft, sd 3345 ft.

TAYLOR COUNTY—W. G. Clark & Humble O&R Co.'s Kendall 1, dr 1960 ft. Eastland Oil Co. et al's Hunter 1, dr 1210 ft. Gibson-Johnson et al's Bingham 1, dr by junk, td 2412 ft. H. B. Herring-Hucony Gas Co. et al's Richie 1, sd 1080 ft. J. B. Jameson et al's Webb 1, elev 1905 ft, dr 6044 ft. Sanger et al's Abilene Fee 1, rig.

TERRELL COUNTY—Big Bend Oil Corp. et al's Bassett 1, sd 2130 ft. Transcontinental Oil Co.'s Good 1, elev 2405 ft, fsh 5226 ft.

VAL VERDE COUNTY—O. O. Owens et al's H. Y. J. Mills 1, dr igneous rock 6600 ft. Phantom Oil Co.'s Ingram 1, sd 3010 ft.

WARD COUNTY—Atlantic Oil Prod. Co.'s Miller-Reynolds 1, machine. Atlantic & California Co.'s E. W. Thomas 1, sp. Atlantic & Penn Oil Co.'s Bennett 1-B, dr 2250 ft. Bradford et al's M. B. Murray 1, dr 755 ft. Gulf Prod. Co.'s Hutchings 4, making oil and gas, dr 2525 ft; Hutchings 5, dr 1310 ft; O'Brien 9, elev 2655 ft, top salt 1025 ft, flowed 265 bbls oil and little water 2572-2674 ft, td 2688 ft; O'Brien 10, flowed 110 bbls oil 2662-2750 ft; O'Brien 11, flowed 180 bbls oil, 2725 ft; O'Brien 12, top lime 2325 ft, flowed 235 bbls oil and some water, td 2776 ft; O'Brien 13 and 14, dks. Magnolia Pet. Co.'s Geo. Sealy 1, fsh 500 ft. R. F. Owen et al's Johnson 1, sd 600 ft. Sid Richardson et al's O'Brien 4, dr 230 ft. Shipley Oil Corp.'s Monroe 1-A, sd 1890 ft. Texas Pacific Coal & Oil Co.'s M. Barker 1, lcn.

WINKLER COUNTY—Atlantic Oil Prod. Co. & Joe Maxwell's Daugherty 1, cem cas 2641 ft. Atlantic & Simms Oil Co.'s Geo. Sealy 1, top salt 1690 ft, dr 2580 ft. Champion-Winkler Oil Corp.'s Campbell 1, sd 4250 ft. Jeffrey et al's Brown 2, sd 3120 ft. Magnolia Pet. Co.'s Scarborough 3, rig.

CENTRAL EAST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
RAINS COUNTY—		
D. H. Byrd et al, J. D. Hill 1	*	4535
SMITH COUNTY—		
E. L. Chapman & Sutton, J. M. Hammon 1	*	4295
McElreath & Suggett, J. Gillian 1 ..	*	4010

BOWIE COUNTY—Lee Timberlake et al's J. Tidwell 1, Jas. Eskell sur, elev 286 ft, top Pecan chalk 1229 ft, sd 2435 ft.

CAMP COUNTY—McDonald Bros.-Atlantic Oil Prod. Co. et al's B. D. Tillery 1, J. H. Murphy sur, rig.

CASS COUNTY—Phillips Pet. Co.'s J. R. Old 1, materials.

DELTA COUNTY—C. A. Everetts et al's J. A. Smith 1, J. W. Renfro sur, Pecan chalk 355 to 399 ft, sd 980 ft. Delta County Dev. Co.'s M. E. Hays 1, J. B. Anderson sur, elev 503 ft, Pecan chalk 421 to 481 ft, sd 2906 ft. Hazel-Curtis Oil Co.'s T. J. Irwin 1, B. Williams sur, sd in shale 3006 ft.

ELLIS COUNTY—C. G. Foster & S. C. Richardson's Moise-Cerf 1, LaPena sur, elev 440 ft, sd 2187 ft. E. M. Rogers et al's J. L. Winn 1, Orland Wheeler sur, sd 160 ft. The Triangle Corp.'s W. B. Hale 1, B. Smith sur, Austin chalk 78 to 437 ft, Woodbine sand 836 to 1120 ft, dr 2390 ft.

FANNIN COUNTY—North American Pet. Co.'s Allen 1, W. A. Broadfoot sur, sd 975 ft. Ed. V. Parsons et al's Morgan 1, J. E. English sur, elev 668 ft, show oil, gas and water 3059-72 ft, cem cas 3085 ft. E. M. Rogers et al's Mrs. E. C. McSwain 1, J. Tolgade sur, fsh 1350 ft.

FRANKLIN COUNTY—Harper-Byers Oil Co.'s A. J. Laws 1, D. G. Rogers sur, sp and sd.

HENDERSON COUNTY—H. B. Ashburn et al's T. E. Terry 1, Arron York sur, elev 397 ft, sd 2510 ft. L. G. Bradstreet & Co.'s J. J. Shaughnessy 1, John Isard sur, elev 548 ft, top Midway 1040 ft, sd 1968 ft. E. L. Chapman et al's Cade 1, Simon Weiss sur, elev 340 ft, fsh 3194 ft. Cranfill-Germany, Inc.'s, C. C. Starr 1, G. Acosta sur, elev 434 ft, Pecan chalk 2544-2770 ft, dr shale 3937 ft. Geo. L. Pace et al's S. Anthony 1, J. M. Betram sur, elev 410 ft, sd 1205 ft. Sunray Oil Co.'s R. H. Davis 1, E. G. Harris sur, top Pecan chalk 2536 ft, dr 2600 ft.

HUNT COUNTY—Fred B. Branson-C. A. Kelsey et al's J. S. West 1, Jas. Rhodes sur, elev 505 ft, Pecan chalk 1310-1365 ft, Austin chalk 1415-1815 ft, sd 2930 ft.

KAUFMAN COUNTY—Otto R. Winter & Coastline Explorations, Inc.'s, John Barrow 1, R. A. Terrell sur, top broken chalk 1080 ft, dr 1133 ft.

LIMESTONE COUNTY—Haley-Heemann's Wilkes 1, J. Breeding sur, elev 421 ft, dr 1365 ft.

MORRIS COUNTY — Tucker-Fullwood-Cook's P. M. Staggers 1, G. Forbes sur, dr 700 ft.

NAVARRO COUNTY — O. W. Killam & Phillips' L. N. Wilson 1, elev 391 ft, Austin chalk 1157 to 1497 ft, top Woodbine 1991 ft, dr 2330 ft. Navarro Oil Co.'s W. N. Mathews 2, A. J. & P. M. Smith sur, Austin chalk 755 to 1075 ft, bad hole 1550 ft. Young et al's J. H. Farmer 1, Robt. Finley sur, top Austin chalk 787 ft, sd 960 ft.

RAINS COUNTY—Everett & Morrison's F. Franklin 1, J. Christian sur, sp and sd.

RED RIVER COUNTY—E. L. Chapman et al's Morris-Guest 1, S. Lakin sur, dr 1505 ft.

RUSK COUNTY—Benedum-Trees Oil Co.-Clem S. Clark's McCaslin 1, rig. E. M. Joiner et al's Bradford 3, elev 390 ft, Pecan chalk 2590-2744 ft, base Austin chalk 3480 ft, testing 3592 ft. Moss et al's Mathews 1, top Pecan chalk 2296 ft, sd 2330 ft.

SMITH COUNTY—Owen-Sloan Oil Co. & R. H. Davis' J. H. Starnes 1, J. W. Allen sur, elev 417 ft, dr 1715 ft. T. B. Slick & Winona Oil Co.'s Morgan Freeman 1, A. J. LaGrone sur, 503 ft, sd 2667 ft.

TITUS COUNTY—Deep Rock Oil Co. et al's F. M. Autrey 1, John Ping sur, rig.

VAN ZANDT COUNTY—Bethel Oil Co.'s P. Smith 1, M. Neal sur, elev 435 ft, Chalk 2555-2790 ft, base Austin chalk 3865 ft, dr 3930 ft. E. L. Chapman et al's Chas. T. Wolverton 1, Wm. James sur, elev 555 ft, top Austin chalk 2835 ft, dr 3390 ft; Wolverton 2, sd 510 ft. Dr. G. R. Cooper-E. Howard-C. W. Dooley's Elliott 1, W. H. Bundy sur, rig. Chas. F. Kolp et al's C. H. Matthews 1, W. H. Bruce sur, cem 10-inch cas 285 ft. L. G. Priest et al's Blanche Blewett 1, E. Porter sur, elev 610 ft, coring 2800 ft. Texas Chief Oil & Roy. Co.'s J. P. Foster 1, F. Montgomery sur, elev 548 ft, sd 1460 ft. Vanco Oil Co.'s Wages 1, dk. Van Zandt Oil & Dev. Co.'s Sharp-Robinson 1, J. B. Ybarbo sur, elev. 373 ft, top Pecan chalk 2764 ft, Austin chalk 4116 to 4508 ft, dr 4615 ft.

VAN FIELD—Geo. Anderson et al's Sanger (8-ac strip) 1, sd for water 1145 ft. Broderick & Calvert's M. F. Shirley (2.07-ac strip) 1, dk. E. L. Chapman et al's Clark 1, dk. Hartt Pet. Co.'s O. L. & L. L. Swain (2.3-ac strip) 1, dk. Humble O&R Co.'s R. S. Blake 1, dr shale 1890 ft; Blake 2, dk; L. A. Dowdle 1, lcn. Imperator Oil Corp. et al's Carter (strip) 1, dk; G. J. Luther (3.01-ac strip) 1, elev 447 ft, top Pecan chalk 1653 ft, top Austin chalk 2630 ft, sd 2635 ft. Roy Jenkins et al's M. E. Davis 1, sp and sd. Kraft & Kelsey's Wylie Enas sur, rig. Pure Oil Co.'s M. R. Bolin 3, cem cas 302 ft; C. H. Cannon 3, completing 2939 ft; A. D. Clark (36-ac) 4, fsh 2485 ft; Clark 5, lcn; A. D. Clark (4-ac) 1, lcn; A. D. Clark (17-ac) 1, lcn; B. E. Crim 1, lcn; J. F. Crim (40-ac) crooked hole 2756 ft; V. T. Davis 1, dk; R. A. Howell (25-ac) 1, rig; A. R. Humphreys 1, lcn; W. T. Jarman 5, completing 2900 ft; J. T. Leonard 2, completing as pumper, td 2938 ft; Methodist Church Lot 1, lcn; I. D. Miller 1, lcn; M. L. McMahon 1, dr 750 ft; W. E. Morris (79-ac) 1, dk; J. J. Murphree 3, crooked hole 2348 ft; R. H. Peters 2, set packer 2944 ft; J. T. Petty 1, lcn; M. F. Shirley 1, lcn; J. R. Shivers 1, fighting heavy gas 2330 ft; O. L. Swain (40-ac) 1 and 2, lcns; W. F. Swain (22-ac) 1, rig; W. F. Swain (48-ac) 1, coring 2930 ft; H. P. Tunnell 1, lcn; J. T. Thompson 8, dr 2487 ft; Van School (5-ac) 2, dk; Wells 5, dk; Wells 9, dr 2800 ft; Wells 10, lcn; Ella York 1, cem cas 339 ft; Mrs. W. A. York 1, lcn. Shell Pet. Corp.'s I. P. Tunnell 6, completing 2936 ft. Sun Oil Co.'s I. W. Thompson 3, dk. The Texas Co.'s R. V. White (34-ac) 2, dk; W. H. White (35-ac) 2, completing 2954 ft. Van Joint Account's W. E. Morris (3-ac) 2, lcn.

WOOD COUNTY—Wood County Development Co.'s Ricks 1, Daniel Fuller sur, dk.

SOUTH TEXAS

ATASCOSA COUNTY — American Central O&G Co.'s McConnell 2, td 400 ft, still sd. Frontier Oil Co.'s Bonyton 2, John Sharp sur, td 226 ft, dr 9-in hole, set 10 in csg at 137 ft.

BASTROP COUNTY — Pacific O&G Co.'s J. M. Litton 1, permit granted.

BEE COUNTY—Arkansas Natural Gas Co.'s Kimball 1, Stephen Winship sur, td 3615 ft, on dst 3543-46 ft, 7 fourbles salt water, dr. Batex Prod. Co.'s Barnett Heirs 2, sp in. Cosden Oil Co.'s McKinney 3, 500 ft w of No. 1, td 3660 ft, csg set 3648 ft, dst 3648-55 ft, show oil and mud, lins 51-54, cap 54-55 ft, jetting 40 bbls daily. Getty Oil Co.'s Townsite 1, blk 40, td 3630 ft, dr in shale. Glasscock Bros.'s Pettus Town 2, blk 24, td 3879 ft, set 6⅝ in cas at 3862 ft, dr. Grayburg Oil Co.'s Kimball 1-B e of new producer, td 3587 ft, coring, water sand at 3575 ft; Copeland 1, w of producer, td 3470 ft, sd, boiler trouble. Humble O&R Co.'s McKinney 5, s offset to Houston-Beasley-Town well, td 3895 ft, top at 3890 ft, setting csg. Houston Oil Co.'s Newman 2,C. A. Kerr sur, ru; Pettus Town 2, blk. 210, lcn; Pettus Town 3, blk. 23, td 2990 ft, dr; Pettus Town 4, blk. 33, td 2890 ft, dr in shale and shells; Pettus Town 5, blk. 35, td 3550 ft, dr in shale. Geo. Henshaw et al's Beck 1, Hicks-Hahl subdivision, td 4273 ft, sd in shale. Independent O&G Co. and Moody-Seagraves Prod. Co.'s Quincy 1, A. & J. Moyah sur, td 2100 ft, dr. Edwin Jones' Rapp 1, Uranga sur, td 6062 ft, plugged back to 2500 ft, tried to whipstock abt 2700 ft, now sd; Rapp 2, 105 ft se of No. 1, dk. Lange & Mims' Billingsley 1, Grayburgh-Kimball area, td 380 ft, sd. Nichols et al's Hicks 4, Jose Maria Uranga sur, td 4312 ft, attempt dst. Osage Oil Co.'s A. J. Mauldin 1, Pointevent sur, lcn. Hicks & Young's formerly Gene Patton et al Billingsley 1, B. Q. Hadley sur, td 360 ft, sd. Ed Price's Weiss 1, 3½ mi se Pettus production, td 4415 ft, top of pay 4411, dst, 700 lbs.

pressure in 4 minutes, open 6¼ minutes, prod. 30,000,000 cubic ft of wet gas. Rio Bravo Oil Co.'s SAAP 2, townsite, lcn; SAAP 4, 390 ft n of No. 3, permit granted; SAAP 5, n of No. 4, permit granted; SAAP 6, 326 ft n of No. 5, permit granted; SAAP 8, 435 ft n of No. 7, permit granted; SAAP 9, 435 ft n of No. 8, permit granted; SAAP 10, 200 ft from w line and 140 ft from s line, permit granted; SAAP 11, 140 ft from s and 150 ft from ne line, permit granted; SAAP 12, 70 ft from w line and 200 ft from s line, permit granted; SAAP 13, 700 ft s of No. 14, permit granted; SAAP 15, 750 ft n of No. 14, permit granted; SAAP 16, 871 ft n of No. 15, permit granted. Swift et al's Mauldine 1, td 190 ft, sd. T. B. Slick's Alfred Theis 1, 1 mi ne of Gadiz, sp in; Townsite 2, blk 19, td 3960 ft, plugging back and whipstock to pay; Townsite 3, blk 31, td 2380 ft, dr in shale. Simms Oil Co.'s Holzmark 1, James A. York sur, td 1904 ft, sd. Southern Crude Oil Co.'s Dahl 1, Mana Dahl tract, td 4350 ft. Sun Oil Co.'s Barnett 1, offset to Batex-Barnett producer, ru. Texas Co.'s Scott 2, J. M. Urango sur, lcn; Scott No. 3, 7100 ft sw of No. 1, permit granted. Union Prod. Co.'s Ray 10, 3200 ft from ne line and 300 ft from w line of R. G. Millican sur, td 4036 ft, set 6⅝-in csg at 4032 ft, oil sand at 4032-36 ft. dst, 1 joint oil, 3 fourbles sand; Ray 13, Geo. Habmer sur, ru; Ray 15, e offset to Beasley, td 3926 ft, top of pay 3911 ft, set 6⅝-in csg at 3910, prod. 40 bbls on 3/8-in choke on csg, work pressure 400 lbs.; Ray 16, 150 ft e Pettus townsite, blk 41, td 3863 ft, top of pay 3848 ft, prod 20,000,000 cubic ft of wet gas, working pressure 1400 lbs; Ray 17, R. G. Millican sur, td 308 ft, set 10-in csg; Ray 18, offset to blk 38 townsite, dk; Ray 19, offset to blk 37, ru; Ray 20, e offset Humble No. 5 McKinney, ru; Ray 21, offsett to blk 40 townsite; Ray 22, Pettus townsite, lcn; Ray 23, offset to bkl 39 townsite, lcn; Ray 24, in original gas area, 1 mi n of main oil production, lcn; Ray 25, in vicinity of No. 24, lcn; Ray 26, in gas area, lcn. Wilson and Hill's Townsite 1, center of blk 14, lcn; Townsite 2, center of blk 16, lcn.

BEXAR COUNTY—Bolling and Michael's J. P. Adam 1, M. Gotzire sur, td 680 ft, dr. Eckert and Son's Sandemer 7, Menchaca sur, lcn. Edminston et al's Hamberdale 1, Dobrowolski pool, td 688 ft, set csg, to dr out plug. KMS Pet. Co.'s E. Salicky 1, Mission Garden sur, lcn. Moore and Juar's Ellison 1, 14 mi w of San Antonio, td 2110 ft, csg set top of sand to test, reported fsh. W. M. Morgan et al's Bloodgood 1, S. Villa Perido sur, td 700 ft sd. Penn-Tex Oil Co.'s Sandemer 3, Menchaca sur, lcn. Russell & Moore's Mills 1, Angel Navarro sur, td 735 ft, heavier equipment rigged up to re-dr; Price-Storey 1, A. Navarro sur, td 200 ft, sd. Swearington Oil Co.'s Fee 6, td 450 ft, dr. Henry Yelvington's formerly Swift & Fischer Beck 1, P. W. Hays sur, td 1400 ft, sd at present.

BROOKS COUNTY — Houston Oil Co.'s Wormser-Holbein 2, Saenz part of Palo Blanco de Manguellos grant, td 3240 ft, on dst at 3149 ft, made small gasser, dr to 3235-40 ft ,gas showing, to make another test. Humble O&R Co.'s Singer 2, 1 mi s of Lasater field, td 4427 ft, dr. Southern Crude Oil Purchasing Co.'s Holbein-Wormser 1, 4 mi s of production in Lasater field sp in.

BLANCO COUNTY — Adams & Lysles' 1, 5 mi nw of Blanco City, td 415 dr. D. J. Meek's E. W. Walker 1, Noel Nixon sur, td abt 420 ft, dr. C. L. McCreary's Miers 1, Scherling subdivision, td 100 ft, dr. H. Sitton's McMillen 1, 2 mi w of Blanco, td 150 ft, dr.

CALDWELL COUNTY—W. E. Allan's McKean 2, 300 ft w of No. 1, prep to sp in. Al-Buchanan's Brown 2, C. M. Cannon sur, td 40 ft, surface pipe set and sd. Herb Morgan's Perry 2, 1500 ft w of No. 1, lcn.

COMAL COUNTY — Caldwell & Lanier's Hyler 1, 6 mi s of Blanco City no information.

DUVAL COUNTY — Callahan, Howard & Smith's Luby 1, sur 24, td 3760 ft, dr. Henne & Winch's W. E. May, Benavides 1, M. Arispe sur, td 2846 ft, plugged. Humble O&G Co.'s Koehler 48, ru. Larco Gas & Pet. Co.'s Black-Beall 1, 400 acres blk in nw part of county, lcn. Mag. Pet. Co.'s Lundell 1, td 5762 ft, dr; Schoolfield & O'Byrne 1, td 4765 ft, dr; Hahl-Norton 1, Pointevent sur, td 500 ft, dr. W. E. Mulholl's Benavides 2, td 1700 ft, dr. Putman & Walsh's Hagdist 1, sur 2694, td 2510 ft, sd. SAL O&G Co.'s Welder-Woods 2, sur 215, td 2130 ft, dr. South Texas Prod. Co.'s Peters 1, sur 398, td 1810 ft, csg set at 1806 ft, prod 20,000,000 cubic ft of gas, 510 ft rock pressure; Dinn 3, ru. M. I. Shaw's Benevides 2, sur 173, td 600 ft, dr. SRC Co.'s Duval Ranch Co. 1, sur 280, 10,000 acre tract, dr water well.

EDWARDS COUNTY — James Dalgish, et al's Sid Peterson 1, Warner ranch, td 1250 ft, dr, set 12-in csg at 700 ft.

KERR COUNTY—Mahse & Trunstill's Jeff Love 1, Western Kerr County, td 500 ft, set 10-in csg.

FRIO COUNTY—A. H. Wray's Barnes 1, sec 123, td 100 ft.

GOLIAD COUNTY—A. T. Rheimenschneider, Trustee's A. T. Fromme 1, blk. Peter Dexter sur, td 1700 ft, no report, last report, dr in shale, show of gas 1658-65 ft. Union Prod. Co.'s Ray 12, s of W. E. Sutherland sur, td 4470 ft, coring; Ray 27, a mi ne of Union's Ray 3, lcn; Ray 28, 2 mi e Union's Ray 3, lcn; Ray 29, 2 mi e Ray 3 lcn.

GONZALES COUNTY—Lake & Thompson's Campbell 1, Saturn area, no rpt. Linden Pet. Co.'s Hensley 1, James Smith sur, td about 800 ft, dr. John Mauldin's Finnell & Elam, Robinson 2, td around 3200 ft, dr. Sterene & Terrell's F. Ramzinsky 1, sp in. United North & South Dev. Co.'s Preston 2, 900 ft s of No. 1, td 1837 ft, dr in sticky shale.

GUADALUPE COUNTY — Abersombie et al's Dix McKean 9, Joel R. Robinson sur, dk. Adams & Lyles' Nitsch 1, Zoboroski area, td 2478 ft, dr in Broken Austin chalk. AMH Oil Co.'s F. S. Bibbs 1, J. W. Robinson sur, td 2571 ft, sd. Cranfill-Reynolds' J. McIntyre 1, A. Gibson sur, td 200 ft, dr. Empire O&G Co.'s Dowdy 5, td 900 ft, dr. Gulf Prod. Co.'s Dix McKean 4-A, td 2581 ft, prod, 1500 bbls. Humble O&R Co.'s Baker 7, td abt 2690 ft, prod. no report on production; D. D. Baker 8, td 2100 ft, dr; Dowdy 3-A, td 2000 ft, dr. Hines, Brown & Davenport's Atzger 1, td 2200 ft, dr. Lewis, Gue et al's Malone 1, 2000 ft w of Seligmann Tidal well, lcn. New Braunfels O&G Co.'s Seideman 1, Esneuricas Eleven league sur, td 500 ft. Mag. Pet. Co.'s L. V. Echols 4, 400 ft w of No. 3, td, no information, dr. Lewis Neis' Otto Voges 1, Posefa Leal sur, td 592 ft, sd. Ray Oil Co.'s R. Flesing, M. Baker sur, td 940 ft, dr.

JIM HOGG COUNTY—Cole Pet. Co.'s W. P. Allen 1, blk 7, sur 23, lcn; Wood 1, blk 16, sur 82, lcn. Pippin & Mussey's N. Hinnant 1, CB&NC sur, dk. William H. Barnhardt's McCampbell ranch 1, Barnhardt subdivision, dr contract awarded.

KARNES COUNTY—Morrissey & Edminston's T. H. Ragsdale 1, John McCall sur, td 1365 ft, sd.

KENDALL COUNTY—Borget et al's Wallie Haag 1, td 940 ft, re dr. C. R. Dutton's Lawhorn 1, J. Lawhorn, td 500 ft, re-dr after repairing machinery. Dixon et al's Behr 1, 3 mi se Sisterdale, td 1935 ft, dr. Molwinkle et al's Karston 1, 1 mi w of Kendalia, td abt 1000 ft, dr. Premium Oil Co.'s Hays 1 ru. P. & S. Sterling's McCrocklin 1, C. B. Owen sur, td 850 ft, dr. W. B. Sitton's Garvin 1, td below 725 ft, dr.

KINNEY COUNTY—Blume et al's Herbst 2, td, 300 ft, sd. Mag. Pet. Co.'s Wardlow 1, Blaez sur, td 3140 ft, dr. Mardon Oil Co.'s Clamp 2, td 2714 ft, dr.

LIVE OAK COUNTY—Cattlett & O'Neill's Pat Pugh 1, E. Garner sur, lcn. Houston Oil Co.'s Booth 1, td 5257 ft, reaming at 2230 ft to set csg, dst 5252-57 ft, 300 ft 48 gravity oil in 12 minutes; Cartwright 22, td 4260 ft, dr in sand. Larco Gas & Pet. Co.'s Wallace D. Wade 1, 5 mi n and e of Sandaria, lcn. Maskey et al's Reeves-Brown 1, S. E. King tract, dk.

MAVERICK COUNTY—Rycade Oil Co.'s Chittim 5, sec 129, td 4675 ft, dr; Sullivan 5, sec 82, td 6874 ft, dr; Chittim 6, sec 416, td 3475 ft, standing.

McMULLEN COUNTY—N. Coquat's Wm. Fahler 1, Geo. Pickett sur, td 2004 ft, sd for orders, contract depth.

MEDINA COUNTY—Armstrong et al's Donaldson 1 sur No 25 td 170 ft, sd. Calco Pet Co's Crawford 1 sur 478, td 1475 ft, dr in sandy lime. Fitzgerald et al's 1 (6 mi SE Devine ru. Natl Oil Co's Howard 1 (6 mi NW Devine) td 1645 ft, set 6⅝ in csg at 1610 ft on top of sand, cored saturated sand 35 ft, being tested. Pan-American Dev Co's Hardt 1 td 1800 ft, csg set 1170 ft, re-dr. Sunflower Oil Co's Mofield 1, J Brothag sur, td 945 ft, csg set 882 ft, wo showing oil sand, water and gas.

NUECES COUNTY—Grimm & Yakey's Land Ranch 1 (7½ mi NE of Agua Dulce field) loc. Houston Oil Co's M. E. Brooks 1 (Agua Dulce field) td 5300 ft. drilling and coring; Rand Morgan 1, 350 ft E Laurence gasser) lcn. Independent O. & G. Co's Baldwin 1, 2½ mi W of Corpus Christi) td 1190 ft, set 12½ in csg, resume drilling. Saxet O. & G. Co's (Pearson et al) Donigan 2, 6 mi w of Corpus Christi, lcn; Dunn 6, s of No. 5 in Saxet field, td 4180 ft, install steel dk. R. A. Thomson Trustee's, Lawerence-Harral 2, 8 mi w of Corpus Christi, td 1659 ft, setting casing; showed 10,000,000 cu ft of dry gas on test.

SAN PATRICIO COUNTY—Cosden Oil Co. et al's John Schmaltsteig 1, C. H. Paul sur, td 1200 ft, set 10 in csg, 12 in csg set 400 ft. Jacob, Bussini & Pickett's J. C. & Bobby Baldwin 1, ½ mi e of Sinton, td below 4000 ft, sd to mv on heavy rig. J. L. Kennedy's Lolie McRay 1, 3½ mi se of Houston-Boothe well, lcn. Peterman Oil Co.'s O. K. Crow 1, 2 mi s of Sinton, prep to sp in; Foster 1, 3½ mi w of Sinton, lcn. Saxet Oil Co.'s Carroll 1, Taft subdivision, prep to sp in. Union Prod Co's Welder 4, ne of E. Portillo sur, prep to sp in.

STARR COUNTY—Kusk Exploration Co's Kelsey 1, J. B. Villereal sur, td 500 ft. dr. Nuguna Oil Co.'s Kelsey-Boss 1, (Porcion 75) ru. Mrs. J. L. Smith's Walch 1, td 915 ft. shows gas and sulphur water, dr in rock, installed roller bit.

UVALDE COUNTY—Anglin O. & G. Co's Union Pecan Plantation 1, 10 mi se of Uvalde, td 250 ft, dr. Mission Dr. Co's Uvalde Pecan Co. 1, 3 mi sw of L. Taylor sur, td 1200 ft, dr. Phantom Oil Co's Caludt 1 (survey 661) td 2250 ft, set 8¼ in csg.

VAL VERDE COUNTY—O. O. Owens et al's Mills 1 ,td 6575 ft, dr. Phantom Oil Co's Ingram 1 (survey 44), td 3050 ft, fsh.

VICTORIA COUNTY—Atte Dr. Co's J. C. West 1, td 1525 ft, still sd. Houston Oil Co's McFadden 1, 1¼ mi of Lion-McFadden well, ru. Lion O. & R. Co's McFadden 2, M. Trevino sur, td 4020 ft, dr in black shale, gas sand at 3740-3975 ft. The Texas Co's McFadden 1, 4 mi SE Lion-McFadden testt, td 2700 ft, dr.

WEBB COUNTY—E. H. Buckner's Benavides 1-A, Arispe Grant, dk; Elliott 1, sec 315, lcn. J. L. Elliott's Esperanza Land and Livestock Co. 2, 12 mi w of Encinal, td 1400 ft, standing. French Oil Co's Benavides 3-A, td 2342 ft, csg set at 2337 ft. Gattlin & Matthews Garza 1 (sur. 413, Muckleroy field) lcn. O. W. Killam No. 19 Bruni lcn; Bruni 12 (blk 22, Albercas Grant) td 3100 ft, dr; Bruni 1 (sec 1 of Billings ranch) td 1800 ft, dr; Bruni 5, td 3009 ft, showed 15,000,000 cubic ft of gas and 50 bbls of oil and salt water at 3000-09 ft, plugging back to complete as gasser. Bruni 2 td 2841 ft, csg set 2841 ft. Mag. Pet. Co's Wright 1 (survey 674) ru; Benavides 4-A, td 2340 ft, set csg at 2335 ft, running tubing; Jones 1 (survey 674) td 2260 ft. dr. Geo. S. Marshall's Garcia 2, td 300 ft, dr. South Texas Prod. Co's S. Benavides 1 (s section of Cole field) td 800 ft, dr; S. Benavides 2, Arispe Grant) td 3005 ft, sd; Benavides 3 lcn. Trussell, Cezeaux & Partee's Bruni 1 lcn. Washington-Texas O. & G. Co's R. O. Benavides 1 (blk 16, sec 268) ru; Barnsley 1 td 1000 ft, dr.

ZAPATA COUNTY—Alamo Dr. and Leasing Co's Trevino 4 (Blair lease) td 1243 ft; Trevino 5 (Claggett lease) lcn; Trevino 6 (Claggett lease) lcn; Trevino 6 (Blair lease) td 1000 ft, dr. Allied Gas Co's Guittierrez 3, td 1270 ft, csg set 1260 ft, prod 125 bbls; Trevino 9-A dk; Trevino 13-A td 1243 ft, csg set 1221, gasser spraying oil; Trevino 14-A, td 1249 ft, casing set at 125 ft, prod. 100 bbls; Trevino 15-A, td 1234 ft, casing set; Trevino 16-A lcn; Guittierrez 4, td 1200 ft, dr; Trevino 2-B, td 1249 ft, csg set; Trevino 3-B lcn; Trevino 4-B lcn; Trevino 5-B lcn; Trevino 6-B lcn; Trevino 7-B, td 200 ft, dr; Trevino 8-B lcn. Arnold & Ahler's (Wicker et al) Garza 3 dk. Blankenship et al's Montemayor 3, td 1215 ft, coring. Blair & Son's Guittierrez 1 (sw of Muckleroy field) dk. Edgington & Niles' Trevino 2-A, td 1100 ft, dr; Trevino 4-B, td 1227 ft, csg set 1214 ft, testing; Trevino 4-B, td 1229 ft, csg set 1214 ft, prod 25,000,000 cubic ft of gas, spraying oil; Trevino 5-B, no report. Grimm & Yakey's Busta-

mente 1, s end of Muckleroy field, no report; C. Bustamente 2 (150 ft ne of center of line) lcn; Trevino 1, sec 412, ru; E. Bustamente 1, Cominta Grant No. 7, lcn; S. Bustamente 1, Comitas Grant No. 34, lcn. Henne & Winch's Jose Bustamente 1, Comits Grant No. 34, td 1374 ft, csg set 1368, prod 25 bbls; Bustamente 2, lcn. Kenne & Jackson's Garza 1, prep tp sp in. O. W. Killam's Cuellar 17-B, td 1545 ft, csg set 1531 ft, prod 100 bbls; Cuellar 18-B, td 2645 ft, sd; Cuellar 25-B, td 1020 ft, dr; Cuellar 24-C, td 1502 ft, dr; Lopez 1, td 975 ft, dr; Lopez 2 (survey 75), td 100 ft, dr; Martinez 2 (survey 75), td 1623 ft; csg set 1616 ft, prod 10,000,000 cubic ft of gas; Slater 1 (Borrego Grant) sp in. Lincoln O. & G. Co's Wormser 1, 12 mi sw Muckleroy pool, dk. Natl. Oil Co's Adams 1 (share of Borego Grant) td 1180 ft, set csg at 1172 ft, testing. Nordan and Morris' Trevino 5-A, csg set 1240 ft; E. Guitterrez 2 lcn; Trevino 2-A, sec 65, lcn; Trevino 1 (Acklen lease) td 1185 ft, coring; Trevino 4-A (450 ft from sw and 150 ft from ne lines) csg set 1334 ft; De la Santos 1, td 1280 ft, made small oil well at 1236 ft,csg set at 1229 ft, dr deeper. B. F. Nixon's Guitterrez 1 (Partition No. 10 Borrego Grant) td 100 ft, dr. Palm City Oil Co.'s Guitterrez 4, C. Redondo sur, lcn. John Papas, Inc, Flores 1 (Porcion 350) dk. Penn Tex Oil Co's F. Benavides 3, ru, laying water line. Penny Prod. Co's Trevino 1, sw of Muckleroy field), td 780 ft, setting rotary tools; Cuellar 1, td 250 ft, dr. W. R. Shankle's Trevino 3, sec 65, lcn; Trevino 4, td 1260 ft, csg set 1248 ft, prod 150 bbls; Trevino 5 sp in. Skoglund & Maddox's Montemayor 1, lcn. Slick et al's Escobas ranch 2, dr; Escobas 3 Ranch, no report. SRC Corporation's Cuellar 9-B, td 1273 ft, dr; Cuellar 10-B, td 1244 ft, csg set at 1229 ft, prod 80 bbls; Cuellar 11-B, td 800 ft, dr; Cuellar 5-B dk; Trevino 5-B, td 1261 ft, dr; Trevino 4-A, td 1280 ft, csg set 1260 ft, prod 65 bbls; Trevino 5-A, td at 1251 ft, set csg. South Texas Prod. Co's Benavides 2 (near Bruni City) td 2700 ft, dr. Trinity Drillers' Cuellar 1, sec. 65, ru; Trevino 2, sec 66, lcn. T. W. Ward's Uribe 1, lcn. Zachry et al's 1 (1½ mi s and w of Natl. No. 1 Adams) lcn.

ZAVALLA COUNTY—Anglin O. & G. Co's Pryor 5, td 1103 ft, plub gack to 425 ft to complete as gasser. Cromwell et al's Whitecotton 1, dk. Texas Gas and Fuel Co's West 7, no report. Weigand Bros' Gates 1, td 2350 ft, new dr stem bits and crude oil, re-dr.

TEXAS GULF COAST

AUSTIN COUNTY—J. T. O'Hara et al's Batla 1, 8 mi nw Raccoon City, sd 4000 ft.

BRAZORIA COUNTY—Thos. Faust et al's Fee 6, 2 mi s Nash dome, dr 4750 ft sandy shale. Rycade and Amerada's Rapid City 1, 2 mi s Danbury, dr 6255 ft shale. Rycade's Wisdom 27, Nash, dr 4112 ft shale. Rycade & Vacuum's Wisdom 1, Lake Jackson, clearing lcn. Rycade & Amerada's Seaburn 1, Stratton Ridge, dr 1250 ft gbo. Freeport Sulphur Co.'s Fee 2001, Bryan Mound, dr 2160 ft sand. Ruck's Patterson's Hunter 1, sw Hoskins Mound, sd 1180 ft. The Texas Co.'s Ewing 1, 1½ mi n Manvel, dr 6440 ft shale. Mills Bennett's Reese 1, Allen dome, dr 2700 ft sand; Poole 1, dr 1475 ft lime and sulphur; Allen 2, ru. United Syndicate's Mores 1, 3 mi n Danbury, dr 1440 ft shale.

CALHOUN COUNTY — The Texas Co.'s Thomas 1, Chocolate Creek district, 6 mi w Port Lavaca, dr 4185 ft shale and lime.

CHAMBERS COUNTY—Pure's Mayes 11, Lost Lake, dk; Mayes 11-A, dr 2935 ft shale. Pure-Rycade's Jackson 1, Oyster Bayou, 6 mi w High Island, dr 4125 ft rock. Shell's Herff 1, Moss Bluff, sdtr 5470 ft. Superior Oil Co.'s H. Jackson 1, 5 mi w High Island, dr 4150 ft sand. The Texas Co.'s Jackson 1, Salt Cedars, dr 3951 ft water sand. Chicago Oil Corp.'s Lawrence 1, 10 mi s Barbers Hill, sd 3950 ft.

GRIMES COUNTY — Cranfill - Reynold's Stoneham 1, 8 mi se Navasota, abn at 3400 ft in shale. Deering & Noble's Templeman 1, 6 mi s Navasota, dr 2640 ft shale.

HARDIN COUNTY—D. O. Speight's Gidrey 1, 4 mi s Batson, dr 2750 ft.

HARRIS COUNTY—Humble's Simms-Smith 78, Goose Creek, dr 3925 ft shale; Humble's Warren 7, Hockley, ru; Minnetex 3, Mykawa, dr 3175 ft sand and lime. Mrs. J. C. Baldwin's Kitzman 1, 2 mi n Cypress, sd 4247 ft.

JACKSON COUNTY — The Texas Co.'s Mitchell 1, Lolita, 12 mi s Edna, sd 6045 ft, waiting on fuel. Jackson Co. Oil Syndicate's Drushell 8, Edna, r 3540 ft.

JEFFERSON COUNTY — Westbury Oil Co.'s West 1, S. Choate sur, dr 3490 ft.

LIBERTY COUNTY—Houtex Prod. Co.'s Deering-Wilhite 2, N. Dayton, abn at 5225 ft cap rock; Mattie R. Davis 1, N. Dayton, dr 3250 ft gbo and lime. Victor Oil Co.'s Gulf Fee 2, N. Dayton, dr 3825 ft sand and shale. Gulf's Ezzell 1, Hankamer, dr 3175 ft shale. Cranfill-Reynolds Co.'s Vajdak 1, e side Esperson, depth 7386 ft; Moore's Bluff B-1, 2 mi se Esperson field, dr 4325 ft shale. Yount-Lee's Moore's Bluff 3, Esperson, dr 7275 ft shale. Gulf's McFadden 2, Moss Bluff, dr 1750 ft gbo.

MATAGORDA COUNTY—Empire's Baker 1, Citrus Grove, dr 1050 ft sand and boulders.

MONTGOMERY COUNTY—Kelly Baker's Juergus 2, 3 mi Conroe, sd 1900 ft.

ORANGE COUNTY—Gulf's W. H. Stark 1, dr 5275 ft sand. The Texas Co.'s Kuhn 2, Port Neches, completed at 4415 ft for 725 bbls 25 gravity oil daily; Stark 2, Port Neches, washing down, set screen at 4600 ft.

WALKER COUNTY — Richardson et al's Smither 1, 12 mi n Huntsville, sd 3450 ft. Texas State Oil Co.'s Fails 1, nw Huntsville, dr 2700 ft shale and lime.

WALLER COUNTY — Kirby Pet. Co.'s Rogers 2, San Felipe, dr 3400 ft shale.

WASHINGTO NCOUNTY—W. B. Birdwell's Schram 1, 3 mi e Brenham, sd 2100 ft. Clifton et al's Pruiss 1, 3 mi sw Brenham, depth 1600 ft.

WHARTON COUNTY—C. S. Thomas' Taylor 1, Boling, dr 1250 ft shale; Veluy 1, sd 250 ft.

SOUTHERN LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
CALCASIEU PARISH—		
Wilfred Lahay, James 2, 3½ mi s Starks dome	* 3965	

ACADIA PARISH—The Texas Co.'s Rayne Heirs 5, Evangeline, s flank, dr 8721 ft sand and shale. Yount-Lee Oil Co.'s Houssiere-Latrielle 9, Evangeline, se side, dr 5988 ft shale.

ASSUMPTION PARISH—Poor Boy Drlg. Co.'s La Barre Est. 1, Napoleonville, dr 2300 ft gbo.

AVOYELLES PARISH — R. A. Tippett's Chatalin 1, 5-1n-3e, sd 3400 ft.

CAMERON PARISH—Pure's Yount-Lee 9, Sweet Lake, set screen at 6815 ft to make test in oil sand. Magnolia's Sweet Lake 1, dr 5350 ft sand and shale. Shell's Watkins 15, Black Bayou, bldg dk foundation; Black Bayou State 1, dr 1950 ft sandy shale. Vacuum's Cameron Meadows 1, e Johnson Bayou, sd 3950 ft. The Texas Co.'s State E. Hackberry 7, fsh 2050 ft; Calcasieu Lake State A-6, s end Calcasieu lake, lcn.

IBERIA PARISH—The Texas Co.'s State Vermilion Bay 5, dr 5576 ft gbo. Jefferson Lake Oil Co.'s Lake Peigneur 7, Jefferson Island, dr 825 ft cap rock; No. 8, dr cap rock 600 ft. Lake Oil Co.'s Ben White 1, 54-12s-7e, dr 2420 ft sand and shale.

IBERVILLE PARISH—Standard's Wilbert 5, Bayou Blue, hit salt 3000 ft, plugged back to 1500 ft for test; Wilbert 7, dk; Wilbert 8, dr 1475 ft gbo; L. Baist Cooperage Co. 1, Bayou Blue, ru; E. B. & S. P. Schwing 1, Bayou Blue, capped piling. Shell's Wilbert 5, White Castle, dr 2000 ft shale.

JEFFERSON PARISH—Humble's Delaware Fur Co. 1, 3 mi nw La Fitte, dr 1940 ft.

LA FAYETTE PARISH—Pure's J. Maumotin 1, 5 mi n Lafayette, dr 5350 ft.

LA FOURCHE PARISH—The Texas Co.'s LL & E-Leeville 1, fsh 5620 ft.

PLAQUEMINES PARISH—Humble's Cockrell-Moran 2, Lake Grand Ecaille, moving in piling; Cockrell-Moran 3, cavity at 1550 ft, fsh for dr pipe; Lake Washington 1, Lake Grand Ecaille pulling liner, depth 5450 ft. The Texas Co.'s Garden Island Bay State 4, dr 2610 ft sand.

ST. LANDRY PARISH—Pure's J. A. Perkins 1, Port Barre, dr 3175 ft shale. Hebert Baker Oil Co.'s Fisher 1, 10-3s-4e, stuck dr pipe at 4375 ft. Alex Rice's Futral 2, Port Barre, lcn.

ST. MARTIN PARISH—Yount-Lee's Hebert 2, Anse La Butte, dr 5560 ft hard sand. Rycade-Humble's Woodyard Lake 1, Bayou Bouillon, dr 4725 ft hard sand.

ST. MARY PARISH — The Texas Co.'s South Coast Co. 1, 4 mi n Franklin, dr 6778 ft sand. La. Ld. & Explo. Co.'s Chas. W. Fox 1, Avoca, dr 5650 ft shale.

TERREBONNE PARISH — Chas. Paggi's Evergreen 2, Houma, sd 1800 ft. The Texas Co.'s Bay Junop 2, moving in; Dog Lake A-3, moving in; Caillou Island 3, dr 2900 ft sticky shale; Caillou Island 4, lcn; Caillou Island 5, lcn; Lake Pelto B-2, abn at 3035 ft in salt; Lake Pelto 4, lcn; 5, lcn; 6, lcn; Bay St. Elaine 4, dr 5520 ft shale, 5, lcn; Lake Barre State 5, ru; Four Isle 4, dr 1150 ft sand.

NORTHERN LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
MOREHOUSE PARISH—		
J. S. Herkness, Bowles 12 18-20-5e	* 3598	

BIENVILLE PARISH—Ar. La. Pipe Line Co.'s Graves 1, 22-16-10, sp 10-inch cas 106 ft, dr 1506 ft. Nicholls et al's McDermott 1, 28-18-6w, tested 1 fourble mud 10 ft oil, wo 6-in cas, td 2358 ft.

BOSSIER PARISH—Andrews & Davlin's Nattin 1, 15-22-14, tested dry 6 ft sand 1476-82 ft, wo td 1485 ft. Autrey Oil Co.'s Johnson 1, 34-19-11, sd for fuel 60 ft; McDade 1, 28-19-11, dk. Morgan et al's Kendricks 2, 22-19-11, sp dr 100 ft. Triangle Drilling Co.'s Bolinger 1, 36-23-13, sp dr 860 ft.

CADDO PARISH—Falcon Oil Co.'s Oden 1, 19-19-14, fsh ds 2475 ft. L. B. Mawk's Swann 1, 23-21-14, sd fuel 700 ft. R. W. Norton's Hill 1, 33-23-16, gauged 11,242,000 cu ft gas spray very light oil, gas tested 819 gal per mil ft, td 5506 ft.

CATAHOULA PARISH—Nick Barbare et al's McGraw 1, 30-10-9e, tested sw small show gas through ds 1152 ft, dr 1250 ft. National O&G Co.'s Kirkland 1, 35-9-10e, dr 2800 ft. La. G&F Co.'s Tensas Delta A-1, 23-6?5e, rig up.

CLAIBORNE PARISH—El Dorado Chief Oil Co.'s Dance 1, 27-20-7w, sd 2240 ft. Leue Oil Co.'s Taylor 1, 16-22-6w, sd in gumbo 3004 ft. Triangle Drilling Co.'s Cox Fee 1, 6-19-5w, dr 1400 ft. Baird Bros. et al's Whittaker 1, 30-20-7w, dk.

CONCORDIA PARISH—A. C. Glassell et al's Pittsfield Plantation 1, 41-8-10e, sd wo 1453 ft. Joe Marr et al's Maxwell 1, 35-3n-8e, set 8-inch 2000 ft, td 2820 ft.

DE SOTO PARISH—Ark. La. Pipe Line Co.'s Johnson 2, 7-11-13, dr 2782 ft. Joe Burnham et al's Hood 1, 30-11-14, sd for fuel 1960 ft. Ark. La. Pipe Line Co.'s Whitney 1, 28-10-14, cor 3144 ft. Mich-Louzanna O&G Dev. Corp.'s Payne 1, 12-11-16, sd wo 2070 ft. Gulf Ref. Co.'s Dry et al 1, 14-11-15, base chalk 1983 ft, dr shale 2482 ft. J. W. Clark's Platt 1, 23-13-14, sp cemtd 12½-inch cas 118 ft. Odell & Lawton's Tidwell 1, 11-13-14, sd water 2628 ft. T. L. Philp's Talbot 1, 9-13-13, dk. Pelham & Bundy's Rhodes 1, 32-13-14, base chalk 1904 ft, dr sandy shale 2130 ft. Frank Melat's Schryver 1, 35-14-13, wosr 150 ft oil hole, td 2819 ft. J. W. Clark's Tidwell 1, 22-13-14, rig up. R. O. Rey's Nelson 1, 36-15-13, sd 2000 ft. Standard Oil Co. of La.'s Dowling Bros 2, 5-13-13, sp 10-inch cas 106 ft, dr 1202 ft.

JACKSON PARISH—El Dorado Chief Oil Co.'s Southern Adv. Paper Co. 1, 35-15-4w, sd 1083 ft.

LINCOLN PARISH—Ark. Fuel Oil Co.'s Lewis & Co. 1, 26-20-4w, tested 8 joints fresh water and show oil and gas 4234-74 ft through ds, arr set 65⅝ cas 4234 ft, td 4274 ft.

MOREHOUSE PARISH—Pelican Nat. Gas Co.'s Tensas Delta 1, 17-18-6e, lcn. J. S. Herkness' Bowles 12, 18-20-5e, sw abn, td 3598 ft. Ruston Drilling Co.'s Tucker & Platt 1, 8-20-6e, tested sw 3039 ft, ds stuck.

NATCHITOCHES PARISH—W. M. Coats et al's Collins 1, 28-9-10, tested dry 2186 to 2270 ft through ds, sd for water 2270 ft. S. D. McDaniels' Clark-Morse 2, 23-5-6, sd 2536 ft. Robeline O&G Co.'s Winn 1, 7-8-9w, sd in rock 1635 ft. J. W. Cooper et al's Cooper 1, 35-11-10, rig up.

RAPIDES PARISH—Ayers Bros.' Wicklipp 1, 9-5n-2e, sd for water 3310 ft.

RED RIVER PARISH—E. C. Lucas' Delta

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The oil operator can get a straighter hole from the T-I-W because he can get all the advantages of a long bit without sacrificing the efficiency of the short bit principle.

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Pecan Co. 1, 34-13-11, arr set 6-inch cas 2440 ft, td 2460 ft with 14 ft sand. Geo. L. Pace et al's Clarkson 1, 30-12-9, top chalk rock 1247 ft, cor chalk rock 1635 ft. Lucky Strike Oil Co.'s Chaffraix 1, 33-12-10, rig up.

RICHLAND PARISH—Austin & McDonald's Millsaps 17-17-6e, sd wo 2697 ft; Millsaps 3, 16-17-6e, sd wo 2477 ft; Hunt 1, 13-17-5e, set 12½-inch cas 200 ft. W. C. Feazel's Landrum 1, 6-16-7e, dk. International Gas Prod. Co.'s Lagrone 1, 7-16-7e, lcn.

SABINE PARISH — Magnolia Pet. Co.'s Giaque 1, 26-7-14, dr 930 ft. McDaniels & Lieber's Batson 1, 16-8-12, sd wo 2526 ft. Loring Oil Co.'s Peavy-Wilson 1, 21-6-13, dr 4750 ft; Bowman-Hicks 5, 34-8-12, sd in sandy lime 4176 ft; Shull 1, 26-8-12, sd 2600 ft; Shull 2, 26-8-12, lcn; Schuffert 1, 27-8-12, rig up. Huber & Mann's Newton 1, 25-8-12, lcn. Lanier & Tarver's Newton 1, 25-8-12, lcn. Texas Co.'s Giaque 1, 27-8-12, dk. R. L. Gay, Tr.'s, Bowman-Hicks 8, 18-7-13, blg to test, td 2552 ft; Sabine Lbr. Co. 5, 15-7-14, sp dr 50 ft. Le Grand et al's Giaque 1, 6-7-12, lcn; J. W. Hale 1, 1-7-13, lcn. D. H. Reddick et al's Scretchfield 1, 18-9-12, sd 3280 ft. Paramount O&G Co.'s Woolums 1, 11-6-12, sd 1650 ft. Zeke Lohman's Wyatt Lbr. Co. 1, 18-4-11, rig up. Lohman & Walker's Hubley 1, 21-7-11, arr set 8-inch 1313 ft after gas blowout 1311-13 ft. Pelican Nat. Gas Co.'s La. Long Leaf 3, 4-7-11, set 6-inch cas 2318 ft, topped marl 2330 ft, td 2334 ft; Sabine Lbr. Co. 3, 6-7-11, top marl 2225 ft, set 6-inch cas 2222 ft, td 2237 ft. Stacey et al's Polly 1, 18-8-12, rig up. Longoria et al's Belton 1, 31-9-12, rig up. Boone, Tr.'s, Hill 1, 4-6-11, dk.

TENSAS PARISH—A. R. Willis' Curry 1, 39-11-12, sd 2300 ft. Stovall Drilling Co.'s Miller 1, 18-10-10e, sp dr 670 ft.

UNION PARISH—Fred Stovall's Murray 1, 32-23-4e, rig up.

WEBSTER PARISH—Pat Hudson's Gardner 1, 1-22-11, dk. Sarepta Oil Co.'s Slack 1, 36-23-11, rig up; Gardner 2, 1-22-11, rig up; Gardner 3, 5-22-10, dk. H. M. Jones Drilling Co.'s Cook 2, 2-22-11, set 6-inch cas 2722 ft, 4 ft sand bldg new dk; Womble 1, 1-22-11, dk. Ideal O&G Co.'s Coyle 1, 24-23-11, dk. K. C. Supply Co.'s Cochran 1, 36-23-11, plub back to 2713 ft, td 2726 ft. Magnolia Pet. Co.'s Sallie Coyle 2, 2-22-11, sp set 15½-inch cas 291 ft; Scroggins 4, 1-22-11, wosr 2717 ft. Merrick Oil Co.'s Slack 3, 36-23-11, dk. S. H. Riggs, Tr.'s, L&A 1, 1-22-11, sd 2100 ft; L&A 2, 36-23-11, dk; L&A 3, 36-23-11, lcn; L&A 4, 36-23-11, lcn. Wingfield et al's Slack 2, 1-22-11, arr deepen, td 2733 ft; Slack 4, 1-22-11, lcn. W. O. Neely's Slack 1, 36-23-11, dk; Slack 2, 36-23-11, lcn. K. C. Supply Co.'s Slack 3, 36-23-11, lcn. Liggett et al's Slack 1, 36-23-11, set 6-inch cas 2732 ft; Slack 2, 36-23-11, sp 10-inch cas 160 ft, dr 1250 ft. Southern Prod. Co.'s Slack 2, 1-22-11, wosr 6 ft bro sand, td 2734 ft; Slack 4, 1-22-11, lcn. J. P. Evans et al's Crichton 1, 31-18-8w, sp set 10-inch cas 180 ft.

ARKANSAS

Company, Well and Location	Initial Production Bbls.	Depth
POPE COUNTY—		
Cosden Oil Co., Mo. Pacific R. R. 1, 13-9n-19w	*	4910

ASHLEY COUNTY—J. C. Marcum's McCurry 1, 10-19-4, tested sw 3555 ft, plug back for re-test.

CALHOUN COUNTY—Tidal Oil Co.'s Ark. Timer 1, 3-16-14, tested 1 fourble oil and mud and 14 fourbles sw through dr 3161-67 ft, fsh ds 3240 ft.

CLEBURNE COUNTY—Cosden Oil Co.'s Donithan Lbr. Co. 1, 19-9-10, sd 3875 ft. Donnell et al's Fee 1, 33-11-9, sd for water 1575 ft.

COLUMBIA COUNTY—Sam Y. Dorman's Merrick 1, 16-17-20, sd 650 ft.

DREW COUNTY—McClintock & Goedke's Ogle 1, 33-13-5, TA 2625 ft.

FRANKLIN COUNTY—Red Bank Oil Co.'s Hamm 1, 33-10-4, sd dr water well, td 2399 ft.

GARLAND COUNTY—H. H. Given's Garrett 1, 1-3n-19w, hole co arr resume dr lime 3617 ft.

GRANT COUNTY—J. R. Lockhart's Cunningham 1, 11-5-16, dk.

HOT SPRINGS COUNTY—Cleary Bros.' Hanson 1, 19-4s-16w, sp dr 75 ft.

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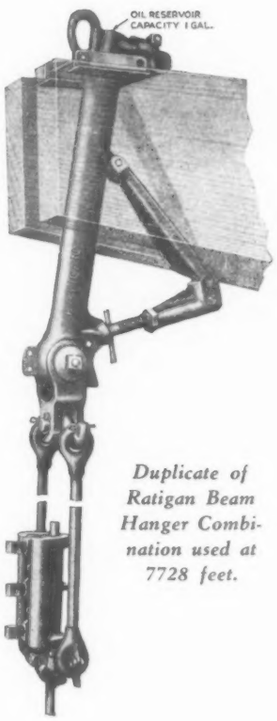
RATIGAN equipped of course



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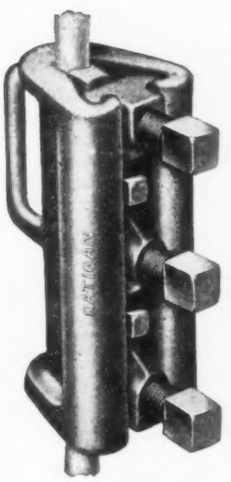

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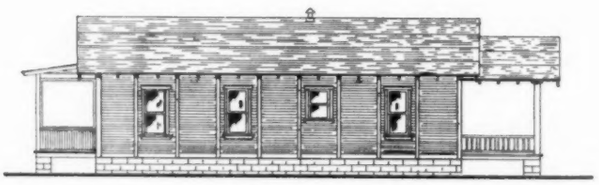

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DIAMOND CHAINS

NIKROME SHAFTS

JOHNSON COUNTY—Ark. La. Pipe Line Co.'s Cline 1, 16-10-24, fsh tools 2850 ft. Blackwell O&G Co.'s Wyver 1, 21-8-23, jarring out 6-inch cas 2100 ft, td 5600 ft. Conn Ganles et al's Holing 1, 20-9-25, sd 2070 ft.

LA FAYETTE COUNTY—Crawford Drilling Co.'s Vaughan 1, 25-19-25, rig.

LAWRENCE COUNTY — Marguerite Dev. Co.'s Broadway 1, 31-17-1, sd 45 ft.

LITTLE RIVER COUNTY—Buck Oil Co.'s Taafe 1, 25-12-32, sd 2505 ft.

LINCOLN COUNTY — B. F. Thompson, Tr.'s, McGehee 1, 8-8-7, rig.

LOGAN COUNTY—M. W. Greesom's Parks 1, 21-8-24, sd 1309 ft. J. H. Flowers' White 1, 13-6-26, ur 5 3/16-inch cas 3570 ft, td 3610 ft.

MADISON COUNTY—J. W. Baxter's Hallem 1, 17-16-26, sd 540 ft.

MILLER COUNTY—Lenz et al's Johnson 1, 24-15-26, set 6-inch cas 2844 ft, hfo wosr, td 2847 ft.

OUACHITA COUNTY — Anderson et al's Buck 1, fsh 2723 ft. Belmont et al's 1, 16-15-17, set 12½-inch cas 120 ft. A. B. Turner, Tr.'s, Brown 1, 23-15-18, set 10-inch cas 103 ft, sd 103 ft.

PIKE COUNTY—Henderson et al's Tilyou 1, 26-8-24, lcn.

POPE COUNTY—Ark. La. Pipe Line Co.'s J. H. Moore 1, 16-9-21, dr 900 ft. Cosden Oil Co.'s Mo. Pac. R. R. 1, 13-9n-19w, shot formation 4160-90 ft, now show dry, abn, td 4910 ft.

SCOTT COUNTY — Heavener O&G Co.'s Reser 1, 36-4-26, straightening hole, td 1530 ft.

SEBASTIAN COUNTY—M. W. Greesom's Spears 1, 9-7-29, tested sw, sd wo 3515 ft. Mansfield Gas Co.'s Fee 14, 1-4n-31w, sd for water 380 ft. Ozark Nat. Gas Co.'s Weaver 1, 27-8-30, straightening hole, td 2640 ft.

UNION COUNTY—H. L. Hunt's Pratt 6, 7-18-15, pumping sw, td 2214 ft. Malloy & Co.'s Robertson 3,(6-18-15, lcn abn. Murphy 1, 1-18-16, lcn abn. Hickman et al's Hogg 1, 35-16-17, fsh 2157 ft. Marine Oil Co.'s Thompson A-4, 10-18-13, tested 5 mil ft gas through ds 3548-51 ft, cemtd 6⅝ cas 3548 ft, td 3554 ft. South El Dorado Oil Co.'s Trayler 1, 9-19-13, co, td 2186 ft. Modisette Drilling Co.'s Union Sawmill 4, 14-18-14, lcn abn. Sunby et al's Perdue 2, 23-16-14, sd 3207 ft.

WASHINGTON COUNTY—Taylor et al's Runny 1, 1-13-29, sd wo 700 ft. Lincoln Lease Holding Synd's Townsite 1, 36-15-32, TA 1500 ft. C. H. Willoughby's Jones 1, 34-16-30, sd 2150 ft. O'Hara & Shetterley's Boyd 1, 12-16-32, TA 850 ft Delbert Graves' Cunningham 1 14-15-32, sd in gray sand 602 ft.

VAN BUREN COUNTY — J. S. Martin's Scanland 1, 5-9-13, sd 50 ft.

YELL COUNTY—T. Luckett's Balcon 1, 36-7-21, sdtr 5 3/16-inch cas 4120 ft, ttd 4160 ft.

EAST TEXAS

CASS COUNTY—Phillips Pet. Co.'s Olds 1, Stephenson sur, rig up.

HARRISON COUNTY — Shell Rock Pet. Co.'s Daugherty 1, Burris sur, cor 3513 ft.

MARION COUNTY—W. D. Chew's Fee 1, Wm. Hamilton sur, set 6-inch cas 2550 ft. Hussey et al's Trammell 1, Chas. Lockhart sur, dr 1100 ft.

PANOLA COUNTY—Knott et al's Marion Durham 1, Chas. Haley sur, sd 2005 ft. Smith et al's Hunt 1, Albert Johnson sur, dk. Bell et al's Burnett Lbr. Co. 1, S. B. Hendricks sur, rig up. Ark. La. Pipe Line Co.'s Brumble A-2, cor 4274 ft.

SABINE COUNTY—Loring Oil Co.'s Nona Mills Lbr. Co. 1, Jas. Mason sur, sp set 12½-inch cas 425 ft, dr 800 ft.

SHELBY COUNTY—Chapparral Oil Co.'s Holt 2, Matthew Moore sur, sd 3300 ft.

MISSISSIPPI

Company, Well and Location	Initial Production Bbls.	Depth
HINDS COUNTY (Jackson Dist.)—		
Cane River O&G Co., Lufkin 1, 15-5-1e	¶16½	2467
Love Pet. Co., Mendoza 2, 12-5-1e,	¶35	2442

ADAMS COUNTY (Natchez Dist.)—A. C.

Glassell et al's Stowers 1, 28-8-2w, cemtd 12½-inch cas 246 ft, sd curing titles.

ALCORN COUNTY — Alcorn Pet. Co.'s Matthews 1, 14-2s-7e, fsh for 6-inch cas, td 2735 ft.

CHICKASAW COUNTY—Hightower & Golson's Fleming 1, 30-13-3, resumed driving 8¼-inch cas at 1414 ft; Fleming 2, 15-13-2w, dk pat.

HINDS COUNTY (Jackson Dist.) — Mrs. Ella Rawls Reeder's State Land 1, 25-6-1e, fsh 4-inch dr pipe, td 2905 ft. Capital O&G Co.'s Brown 1, 28-6-1e, topped Midway chalk 2499 ft, arr set 6⅝ cas 2501 ft; Clark 1, 10-5-1e, setting 8¼-inch cas top Midway chalk 2501 ft. Dome O&G Co.'s Elton 1, 5-4-1e, cor hard rock 2602 ft. Jackson O&G Co.'s Central Cotton 1, 3-5-1e, dk; Mayes 2, 2-5-1e, set 10-inch cas 80 ft, dr 1000 ft. Love Pet. Co.'s Dreyfuss 1, 10-5-1e, rig up. Love Pet. Co.'s Mendoza 2, 12-5-1e, elev 265 ft, topped Midway chalk 2437 ft, making est 35 mil cu ft gas, td 2442 ft, 5 ft Midway chalk. Marine O&G Co.'s Country Club 1, 31-6-1e, dr chalk 2850 ft. Miss. Tex. Oil Co.'s Negro Fair Assn. 1, 28-6-1e, dk. Tri-State O&G Co.'s Wilson 1, 23-6-1e, dk. Universal O&G Co.'s Holliday & Ross 1, 8-6-2e, dr hard sand 1950 ft; Sharbrough 1, 28-6-1e, set 10-inch cas 88 ft. Feazel O&G Co.'s Millstein 1, 2-5-1e, rig up. Cane River O&G Co.'s Lufkin 1, 15-5-1e, gauged 16,674,000 cu ft dry gas, td 2467 ft, 6⅝ cas set top chalk 2465 ft. Gulf Ref. Co.'s Crane 1, 26-6-1e, lcn.

KEMPER COUNTY (De Kalb Dist.)—W. W. Jones' Rosenbaum 1, lcn not given, dk.

LA FAYETTE COUNTY—F. E. West et al's May 1, 22-10-1w, rig up wo.

LAUDERDALE COUNTY (Meridian Dist.)—Lauderdale O&G Co.'s Lackey 1, 2-7-16, sd wo 3434 ft. Meridian Nat. Gas Co.'s Mattie Houser 1, 33-8-18, sd wo in sandy shale 2826 ft. Barney Kennedy et al's Raymond 1, 32-7-2e, rig up.

MONROE COUNTY (Amory Dist.)—Amory Dev. Co.'s Bourland 1, 2-13-19, sd wo 2912 ft. Park Bowser's Cowart 1, 2-12-19, sd 85 ft. Associated Oil Royalties' School Board 1, 16-15-17w, rig up.

RANKIN COUNTY (Jackson Dist.)—Jackson O&G Co.'s Patton 1, 17-5-2e, dr midway black shale 2480 ft. Love Pet. Co.'s Moore 1, 28-6-2e, sd 900 ft. Ohio Oil Co.'s Payne 1, 12-5-1e, set 9-inch cas 900 ft, dr hard rock 1501 ft. Gulf Ref. Co.'s J. M. Hartfield A-1, 7-5-2e, lcn.

WARREN COUNTY (Vicksburg Dist.)—Henderson et al's Dornbusch 1, 8-18-15, sd with ds in hole, td 2475 ft.

WEBSTER COUNTY — Cumberland Oil Co.'s Henley 1, 15-21-11, TA 1865 ft.

WILKINSON COUNTY (Natchez Dist.)—A. C. Glassell et al's Belz-Hoover 1, 1-5-2w, dr 3000 ft.

YALABOUSHA COUNTY (Water Valley Dist.)—J. D. Collett et al's Blackmer 1, 14-11-4w, dr at 2300 ft after sdtr collar, td old hole 2434 ft.

ALABAMA

HOUSTON COUNTY—J. R. Sealey's Fee 1, 13-1n-27e, changing from cable tools to rotary, td 3100 ft.

LAUDERDALE COUNTY — P. J. McAlpine's O'Neal Hrs. 1, 8-2s-13w, reset 8¼-inch cas in white limestone 1908 ft.

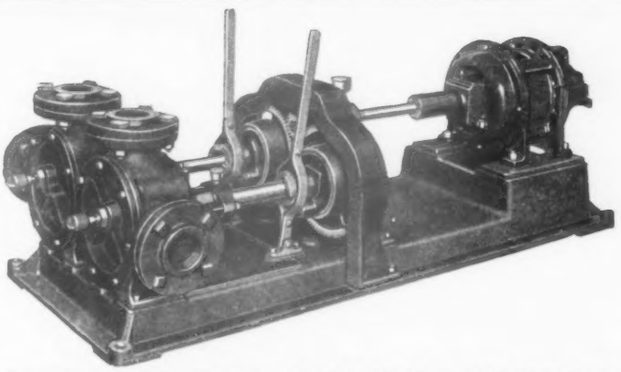
MORGAN COUNTY—Albany-Decatur O&G Co.'s English 1, 6-6-4, fsh for cas 4130 ft.

SUMTER COUNTY—B. W. Bates' Fee 1, 3-18-1w, TA 1200 ft; Fee 2, 3-18-1w, rig up, wo.

WASHINGTON COUNTY—Hobson et al's Wilson 1, 27-7-1w, sd in limey shale 881 ft; Hobson Bros. 1, 9-8-2w, sd 1450 ft. Oscar Brown's U. S. Land & Cotton 2, 25-3-2w, no report.

TENNESSEE

DECATUR COUNTY—Chester County O&G Co.'s Montgomery 1, sd 1881 ft.



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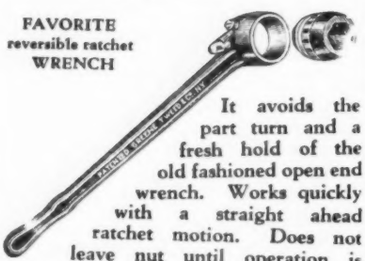

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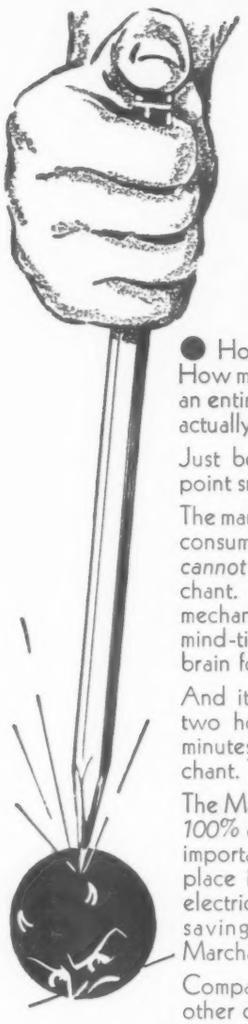

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● How many times has it got *you* in bad? How many times have you had to refigure an entire job? How many times have you actually lost good money?

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And it saves time amazingly! One hour, two hours, three hours of work in five minutes is not uncommon with the Marchant. The average saving is 25% to 40%.

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5 *exclusive improvements*

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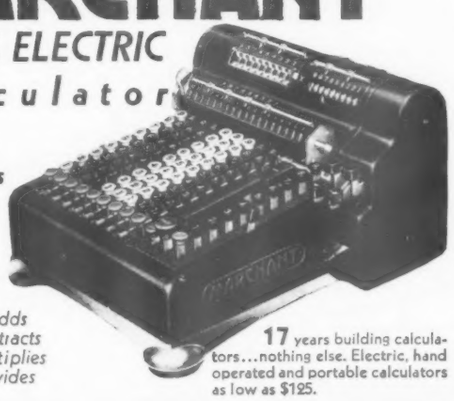

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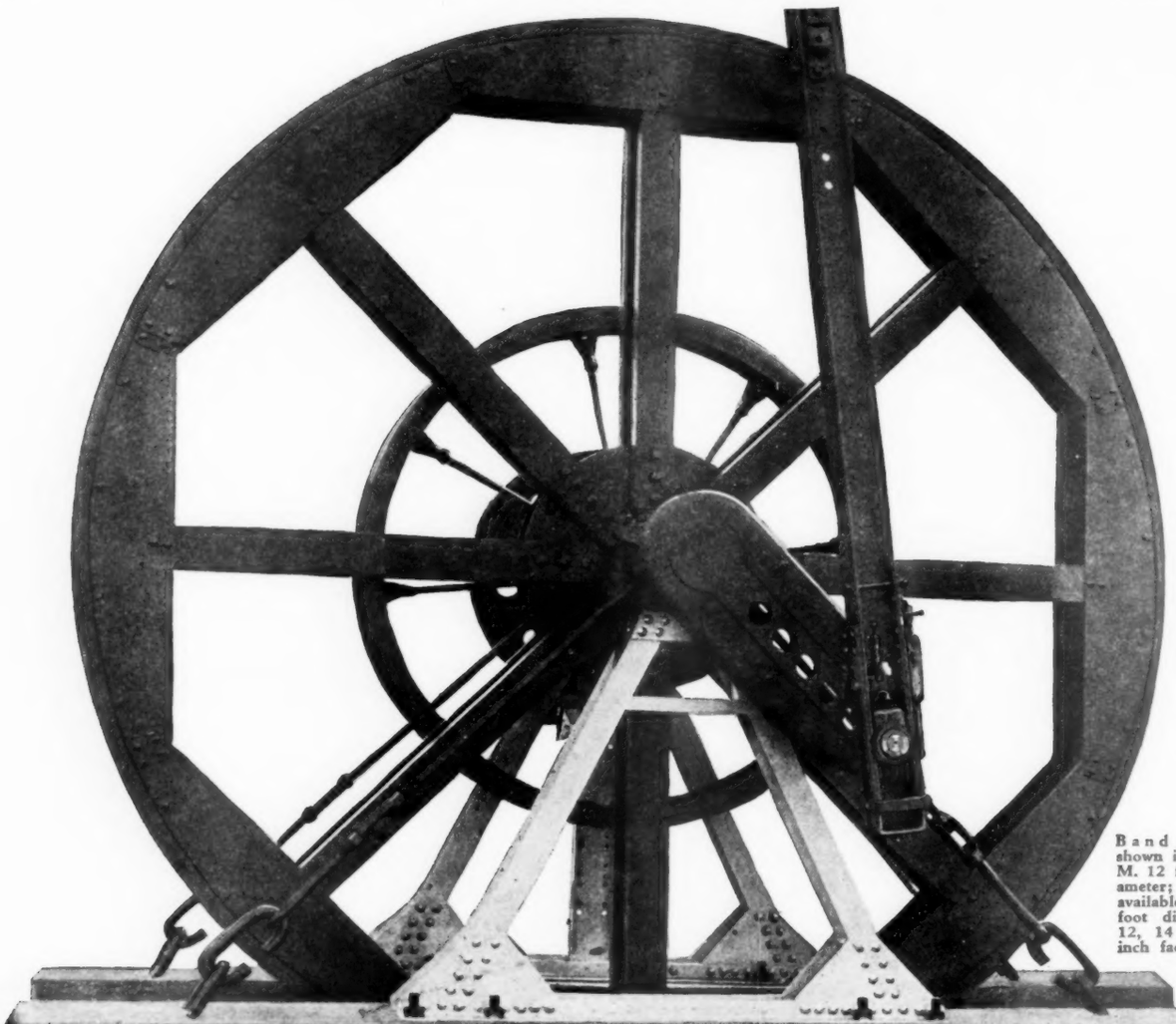

Band Wheel shown is Type M. 12 foot diameter; also available in 14 foot diameter: 12, 14 or 16 inch face.

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Quality is a fundamental of Satisfaction. Not only the finest of materials accurately and honestly fabricated, but ideals and pride of workmanship are combined in terms of performance and stamina for long, economical use.

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New Equipment for the Field

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New Flange Union

OIL CENTER TOOL COMPANY

Oil Center Tool Company, 924 Adelle street, Houston, is now manufacturing and distributing a new forged steel flange union with a renewable bronze ring, which has a loose flange on one end, making it easier to put bolts in the holes.

This union, which is shown in the accompanying illustration, is designed and constructed to make up tight even though it may have dirt or grit in the seat, the softness of the bronze ring making this possible.

An advantageous feature of this flange union is that the ring is easily interchangeable within a few minutes.

These unions are made and tested to as high as 10,000 pounds pressure.

Automatic Die Head

JARECKI MANUFACTURING COMPANY

Jarecki Manufacturing Company, Erie, Pennsylvania, announces the production and distribution of a new automatic die-head that covers the entire range. It is Timken bearing equipped and is designed for faster threading.

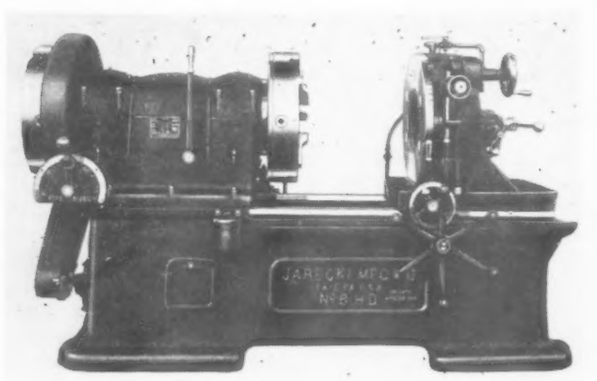
The eight-inch machine gives an average threading speed of more than 29 feet per minute, and cuts off eight-inch pipe at the rate of more than 100 feet per minute. A forged steel trigger extending inside the die-head, automatically opens the dies when the correct length of thread has been cut. The trigger is set for any length of thread desired. It recedes out of the way when the chasers are open and returns to position when the chasers are closed.

The design is such as to make the job of changing chasers an easy one, and only one set of chasers is required to thread the standard range, while it is never necessary to change the die-heads. Pressure lubrication to die-head is provided in this new threader.

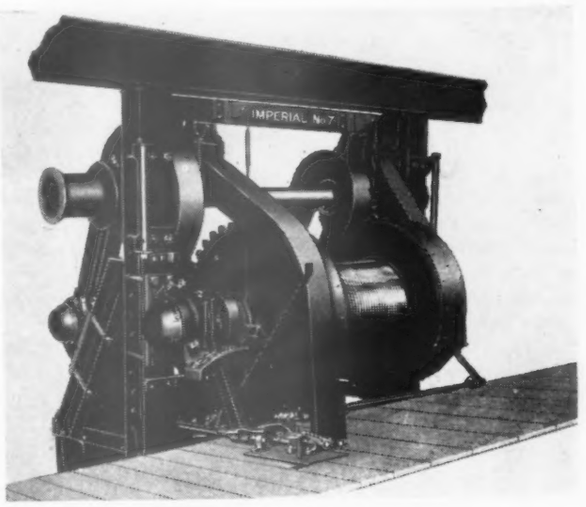
Instant spindle speed adjustment is provided so that the operator can instantly select, from the six spindle speeds, the best speed for the size of the pipe to be threaded. A handy speed-change dial is provided with the pipe sizes marked plainly.

Overloads are provided for in the disc clutch by slippage, to protect the gears, the chasers, and the pipe, and also giving protection when screwing up fittings.

The company has published a four-page folder which may be inserted in loose-leaf form, showing details, pictures and specifications on this new 8-HD threader. It will be furnished upon request to the address given above.



Jarecki Automatic Die-Head



Imperial No. 7 Rotary Hoist

Imperial No. 7 Rotary Hoist

OIL WELL SUPPLY COMPANY

Oil Well Supply Company recently announced the new Imperial No. 9 rotary hoist for drilling in excess of 10,000 feet. Although the trend is toward deeper holes, the manufacturer sees need for the rotary hoist to meet the demands of moderate depths.

The new Imperial No. 7 rotary hoist, which was also recently announced, is especially designed and highly adaptable for drilling to depths up to 5000 feet. This new rotary hoist is of the two post, three shaft, four speed, roller bearing type. It is similar in general design and construction to the Imperial No. 9 and embodies the one-piece balanced drum, mounted on an alloy steel drum shaft, seven inches in diameter between bearings. The line

and jack shafts are each six inches in diameter. The chief difference between these two new hoists is in the construction and arrangements of the braking mechanism.

The braking mechanism on the Imperial No. 7 hoist is a self-contained unit, mounted on the back of the hoist frame and is entirely independent of derrick sills and foundation. No cutting or fitting is necessary when installing this type of brake, as brake band anchor castings and brake shaft bearings are definitely located on the frame supports, which makes mounting of the brake simply a matter of lining up bolt holes. The dead ends of the brake bands are adjustably anchored to the frame through heavy steel castings, the adjustment being simple, foolproof, and easily accessible at rear of the hoist. The live ends of the bands are attached to opposite ends of a heavy bar equalizer, which, in turn, is pivoted in the center thus assuring absolute equal braking power, equal wear and maximum life for each band. The total braking area is 2210 square inches.

Even at ordinary drilling depths it is essential that a rotary hoist frame combine stiffness with strength. Particular attention was given this from the beginning of the design, resulting in a construction which insures ease of erection and dismantling, minimum weight with maximum strength, and a structure which may be placed on either side of the derrick without affecting its rigidity. The frame is built of structural steel throughout, and together with the one-piece balanced drum, reduces vibration to a minimum and thereby prolongs the life of the hoist.

All shafts are of alloy steel and are mounted in heavy duty American roller bearings placed in self-aligning housings. All shafts can be completely stripped of sprockets, clutches, drum and collars on the derrick floor. Complicated movements and connections are eliminated in the clutch shifting mechanism to assure convenience and safety in operation. Cumbersome forgings and castings have also been eliminated. All sprockets and clutch blocks are cast steel. All clutch sprockets are bronze bushed and Alemite lubricated; and all clutch jaws are hardened.

The jack shaft on the Imperial No. 7 rotary hoist can be furnished for steam, Hild or other electric drives.

Rotary Hose

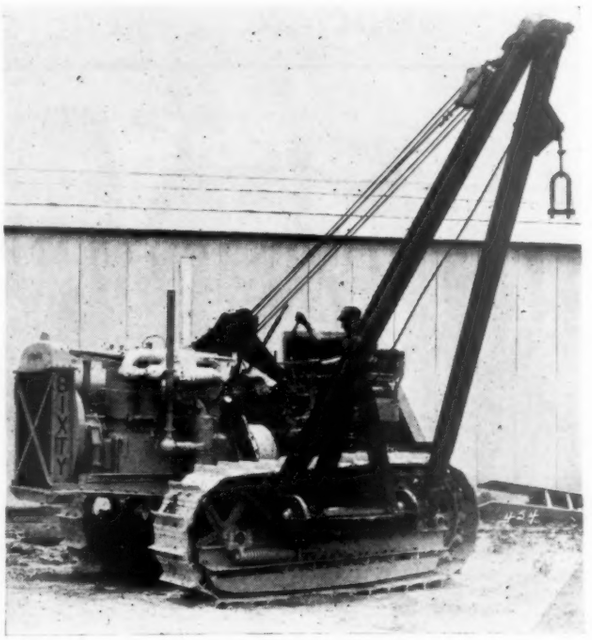
ELLIOTT MANUFACTURING COMPANY

Elliott Manufacturing Company, 5423 McKinley avenue, Los Angeles, has placed on the market an all steel straight line rotary hose following a five-year period of experimental work on different kinds of steel hose.

This hose is made up of a number of universal joints connected by seamless pipe sections. The joints are all identical and each end of the joint may be flexed 23 degrees without materially diminishing the size of the fluid passage. In service more than two-thirds of the hose hangs in a straight line with a straight line fluid passage. The balance makes up a regular curve similar to that of a rubber hose. There are no sharp angles with the hose in any position.

The joints have been tested to more than 8000 pounds without developing any leak or indication of strain, and still the weight of the hose is no greater than that of the rubber hose. The complete hose is shipped in a box approximately 14 inches by 24 inches by 40 inches.

Further information on this hose is available upon request.



Model 60 Pipe Handling Winch

Model 60 Pipe Handling Winch

ALLSTEEL PRODUCTS MANUFACTURING COMPANY

Allsteel Products Manufacturing Company, Wichita, Kansas, announces that deliveries are now being made of the new line of "Cardwell" pipe handling and laying machinery designed as auxiliary equipment for "caterpillar" tractors.

Material used is all steel, electrically welded throughout; cut steel sprockets with demountable rims; Diamond chains; all shafts of Nikrome steel, turning in Hyatt bearings; transmission is Cotta extra heavy duty, constant mesh non-sliding gear type; alemite lubrication.

Boom is of all steel H iron and I beam construction, reinforced; telescope extension design permits adjustment from 12 feet six inches to 21 foot length. Mounted on Model 60 caterpillar tractor, this equipment will hoist and transport loads up to 12,000 pounds. Lifting speeds range from 80 to 428 linear feet per minute. The ability of caterpillar tractors to turn around on their own base, combined with the flexibility of Allsteel equipment, serves to render the full utility of hoisting, traveling and revolving cranes all in one piece of equipment.

An entirely new pipe bending attachment, capable of handling up to 24-inch pipe, also a quickly attached and highly efficient back-filler are now being delivered as additional accessories for the Model 60 pipe handling winch.

Williamsport Wire Rope Company, Williamsport, Pennsylvania, has published a colorful folder showing pictorially the many uses of this company's wire rope where strength and durability are the outstanding requirements. A copy of this folder is available upon request to the company.

NEW EQUIPMENT FOR THE FIELD

BULLETINS—CATALOGS

ALLIS-CHALMERS

Allis-Chalmers has issued a 30-page illustrated booklet on the new Allis-Chalmers Monarch "35" tractor. It contains a brief but complete description of the "35," including mechanical features and performance. Approximately 50 photographs add interest to the booklet and help make it easy reading. On the two center spread pages is a large cross section of the Monarch "35" which shows practically every important detail of construction.

The Monarch "35" develops 41 horsepower at the drawbar. Construction features include removable cylinder sleeves, a crank stabilizer which insures positive track alignment, five truck wheels in each truck frame, wheel-type steering, and others.

LOUIS ALLIS COMPANY

Louis Allis Company, manufacturers of direct and alternating current motors, Milwaukee, Wisconsin, has published an attractive eight-page bulletin covering its latest development in electrical motors. This is Type J motor, which marks a distinct advance in the design of totally-inclosed fan-cooled motors. The bulletin is fully illustrated, showing this new type motor disassembled, and also assembled, ready for installation. This motor, which ranges in sizes and power from three to 100 horsepower, will be fully explained as to details by writing The Louis Allis Company, Milwaukee headquarters.

MAINTENANCE ENGINEERING CORPORATION

Maintenance Engineering Corporation, 1400-2 Conti Street, Houston, has issued a new loose leaf catalog which is devoted to specifications and descriptions of refinery, pipe line and power plant specialties for temperature, pressure and piping, stocked in their Houston and Fort Worth warehouses. This catalog is made up from an engineering standpoint and contains valuable information on forged steel flanges, valves, fittings, etc., not otherwise readily available. Copies of this catalog will be mailed upon request.

BRAUER MACHINE AND SUPPLY

Brauer Machine & Supply Company, Oklahoma City, has recently published a number of folders which describe and illustrate the company's equipment. A seven-page folder outlines the improved compounding manifold valve (yoke type) and the Brauer manifold valve control (regular type.)

The former type replaces the set screw type manifold valve which has been discontinued. A four-page folder covers the Brauer swivel circulating head, giving detailed mechanical design, operating method, and prices. The Brauer shale separator is described in a five-page folder, with drawings showing details of operation. This product is manufactured at the company's Seminole, Oklahoma, factory.

The Brauer hydraulic wall hook, a patented product, which is also manufactured at Seminole, is outlined in pictures and description, is covered in a four-page bulletin which carries a price sheet. A four-page bulletin is also devoted to covering the Brauer standpipe valve. This product is shown with a cut-away drawing which lists all working parts, and a photograph of the valve in use is carried. Sizes and prices are also given in this bulletin. Literature on these three products is available by writing the headquarters of the company at Oklahoma City.

CAVINS BAILER SERVICE

Cavins Bailer Service, 2750 Cherry avenue, Long Beach, California, has issued a new folder describing the action and operation of the Cavins hydraulic suction bailer. Explanation is carried on how this bailer operates almost entirely by the fluid pressure of the well. The bailer is designed to remove sand, millings and miscellaneous fish from the bottom of the hole without spudding or unnecessary loading operations and to avoid agitating the sand. Under tests made in California, the manufacturer states that 75 pounds of millings per run were taken from the bottom of a 7900-foot hole, and that in one case more than 500 pounds of millings and junk were removed from a 6000-foot hole in 6½ hours of bailing.

A copy of this folder is available upon request to the company.

ROBINSON ORIFICE FITTING

Robinson Orifice Fitting Company, Los Angeles, has issued an attractive new catalog containing the latest data and specifications concerning the Robinson orifice fittings. While nearly 13,500 Robinson fittings are in service in the field and refinery today passing practical tests, it has been necessary to issue this catalog for reference by oil field and refinery engineers due to a recent refinement of certain details in construction of the fittings. Working details of the different type Robinson fittings, together with sizes, specifications and prices are included in the catalog, as well as illustrations and description of the Robinson control valve.

MIDWEST PIPING AND SUUPLY

Midwest Piping & Supply Company, St. Louis, has published an elaborate folder on the new Globack joints for high pressure piping. Globack joints are so named because the back faces of the laps are segments of globes or spheres. The flange bearing surfaces are also spherically machined. These lap contact-surfaces have a cold water finish. Globack joints are improvements on the conventional Sarlum, tongue and groove, male and female, and Van Stone joints for 600, 900 and 1350 pounds, W. S. P. They are also available for other pressure ratings. The folder is profusely illustrated and outlines the advantageous features offered in the new Globack joints.

REGAN FORGE

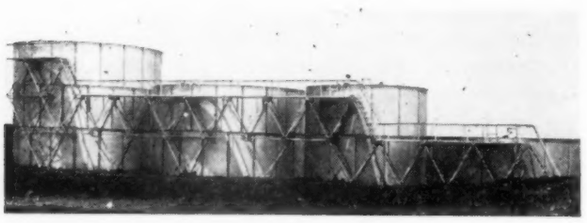
Regan Forge & Engineering Company, San Pedro, California, has recently released two bulletins, showing how to string the wire line from the traveling to the crown block. These bulletins feature type A and B crown blocks and show various types of hook-ups, illustrating four, six, eight, 10 and 12 string-ups. These bulletins comprise part of a series of catalogs that are being released to the producing branch of the industry featuring the Regan products, and the series may be had by request to the San Pedro office.

Manufacturer and Supply Dealer Notes

Coatesville Boiler Works, Coatesville, Pennsylvania, have recently acquired the Middletown, Pennsylvania, plant of Standard Steel Car Company. The addition of this new property to the present shops of the Coatesville Boiler Works makes their capacity the largest in America devoted exclusively to steel plate fabrication. The new property comprises approximately 40 acres of land and one-half million square feet of floor space.

During the past few years the Coatesville Boiler Works has added a complete line of fire box heating boilers, oil field boilers, steam regenerators, galvanizing kettles, and asphalt plant equipment.

Brown Instrument Company, Philadelphia, announces the retirement of George W. W. Cornman, treasurer and manager of the service department, effective August 8. He has been associated with the instrument business for 35 years, formerly being secretary-treasurer of Keystone Electrical Instrument Company. When that organization was absorbed by Brown Instrument Company, he became treasurer and a director of the purchasing company and was the active head of the service department. R. C. Kenman is the new manager of the service department, and E. T. Nahill will be field supervisor.



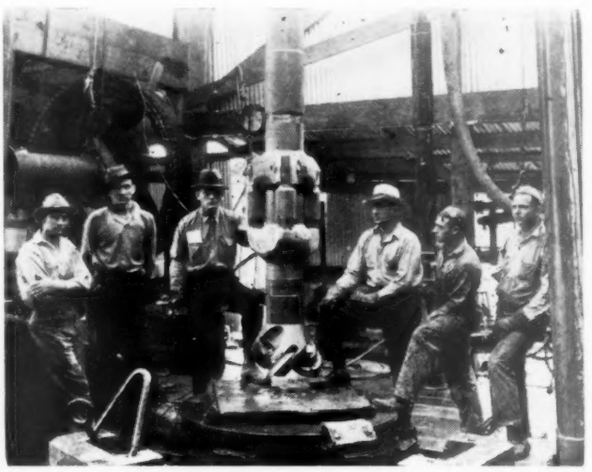
The accompanying photograph of a tank installation shows a new improved runway and stairway development that is proving popular in the Oklahoma City field.

The runway was designed by engineers of Columbian Steel Tank Company on the same principle as a child's Erecto building outfit and lends itself ideally to oil field use as it may be extended as long or as high as desired, changing elevations upward or downward as conditions require.

It is made up of interchangeable angle iron sections, each of which is 90 inches long and 30 inches wide with a diagonal brace. In building up the runway the sections are bolted together by means of hexagonal gusset plates.

Republic Steel Corporation recently placed in operation the first unit of its new $8,000,000 electric welding pipe mill. The mill involves the application of the Johnston electric weld tube patents to pipe of varying sizes, and many new features are involved in the product as well as the process.

Champion & Barber, Inc., of Los Angeles, manufacturers of Champion all-steel rotary hose, new method screen pipe, champion pressure gauge protectors, champion Nikeladium steel goosenecks, and Champion Nickeladium rotary hose connections and parts, have just announced the recent appointment of Bettis Sales Company, 917 Merchants & Manufacturers Building, Houston, as special representatives and Gulf Coast distributors for the entire line of Champion & Barber products.



The accompanying photograph shows the Chiksan 22-inch three-way disc bit, which spudded and drilled Walters No. 1 well in Signal Hill field, California, to 500 feet, where a change was made to a Chiksan 19-inch bit to deepen to 1650 feet, at a rate of 6½ feet per hour. The hole to 1650 feet surveyed as near vertical as possible, and 14-inch stove pipe was landed and cemented at that depth without a stop from the time the shoe point started in until it was cemented.

Reading left to right in the picture are: Earl Strickland, rotary helper; "Slim" Van Landingham, cat-heat; Bill Stout, tool pusher; "Mutt" Dennis, driller; Dell Towns, derrickman; and "Speed" Ladd, rotary helper.

Chicago Bridge & Iron Works has opened a new sales office in Tulsa in charge of D. A. Leach, formerly of the company's New York office.

This new office, which is the fourth one the Chicago Bridge & Iron Works has opened since the first of the year, is in the Exchange Bank Building.

Reading Iron Company, subsidiary of Philadelphia and Reading Coal & Iron Company, has accepted the resignation of President Leon E. Thomas. At a special meeting of the stockholders the office of chairman of the board was created, and A. J. Maloney, president of Philadelphia and Reading Coal & Iron Company, was named to the post. Mr. Maloney will also act as president of Reading Iron Company until Mr. Thomas' successor has been named.

"For every joint on every line"

Buried six inches or six feet—unanchored and following the contours of the ground—pipe lines connected with Victaulic Couplings are your best guarantee against line distortion and line losses under all working pressures.

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Available for steel, wrought iron, cast iron and spiral weld pipe—all sizes from ¾" up—for all working pressures. See Sweet's Page 451. Mail the coupon below.

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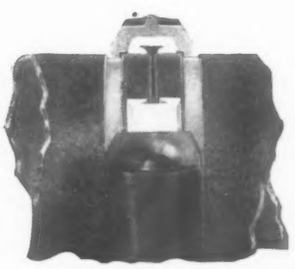
26 Broadway New York



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FOR OIL, GAS, WATER, SEWAGE, COMPRESSED AIR, ETC.

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For uses, installations, specifications and prices, fill in and mail this coupon.

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26 Broadway New York

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Name_____

Address_____

SQUEAKS FROM THE BULL WHEEL

"Now, John," said the judge, "tell us why you insulted this lady."

"Well, Your Honor, I picked this lady up in me cab and took her to where she wanted to go, an' when she got out she gave me the exact change and no more, an' I sez under me breath: 'You stingy ol' hen,' and she heard me."

"Perhaps, John, you can tell us just what is your idea of a lady."

"Well, Y'r Honor, I picked up a lady the other day an' took her to her destination an' she gave me five bob, an' me bein' an honest man I reached fur me change, but sez she: 'Aw, t'hell with the change, go buy yourself a drop of gin.'"

"Why do they call those twin sisters 'tonsils?'"

"Because everybody takes them out."

Fine Business Point

Ikey: "Papa, what is business ethics?"

Abie: "Well, for instance—I sell a pair of shoes, my customer giffs me a ten dollar bill but on my way to the cash register I find dere is two ten dollar bills stuck together. Now, the ethics come in—should I tell my partner?"

Candidate (making campaign speech): "I am a practical farmer and in sympathy with farmers. I can plow, reap, milk cows, shoe a horse—in fact I doubt whether any of my hearers can name one thing about a farm I can not do."

Voice (from back of hall): "Can you lay an egg?"

"Is this train ever on time?" growled the grouchy passenger.

"Oh," replied the conductor, "we never worry about it being on time. We're satisfied if it's on the track."

Pat, just over from Erin, called on an old friend whose son was a licensed air pilot. The son asked Pat how he would like a little ride in his plane. Pat accepted. The son made a few banks and turns, and then a steep, swift descent, then landed. Pat was scared. His friend, with a grin, said to him:

"You know, Pat, when the plane began to cut up, I'll bet half the people down here thought it was falling."

Said Pat: "Yea, and begorra, I'll bet half the people up there thought so too."

Doris: "I don't like John. Last night I puckered up my lips to show him I could whistle—"

Daphne: "Well, what then?"

Doris: "He just let me whistle."

"Did the patent medicine you purchased cure your aunt?"

"Mercy, no! On reading the circular that was wrapped around the bottle she got two more diseases."

Mother (teaching son arithmetic): "Now take the Spinks family. There is mother, daddy and the baby. How many does that make?"

Bright Son: "Two and one to carry."

"Is your father a policeman?"

"No, but he goes with them a lot."

Aviator: "Wanna fly?"

Young Thing: "Oo-o-oh, yeth!"

Aviator: "Wait. I'll catch one for you."

Soon after the arrival of his first baby, his wife went upstairs one evening and found him standing by the side of the crib, gazing earnestly. She was touched by the sight, and tears filled her eyes. Her arms stole softly around his neck as she rubbed her cheek caressingly against his shoulder. He started slightly at the touch.

"Darling," he murmured dreamily, "it is incomprehensible to me how they get up such a crib as that for 98 cents."

A builder who was speaking in public for the first time said: "I am unaccustomed to public speaking. My proper place is on the scaffold."—Christian World.

De Seat

"Black chile, does you all know what deceit am?"

"Suttinly I does, Beelzebub."

"Dhen what is it?"

"Well, when I leans ovah an heahs somethin' rip, I knows dat's de seat."

Cop—You say the judge is absent minded?

Clerk—Well, in court today he dismissed the prisoner, sentenced the jury, scratched his desk and hit himself on the head with the gavel.

She—Dear, the encyclopedia you bought is not reliable. I tried to find out why my biscuits didn't rise, and there was nothing about it at all.

He—Did you look under "yeast?"

She—No, I looked up "why."

A time saver on every lease

THE APPLEMAN GUMBO BIT is designed to fit the needs of those efficient operators who appreciate the value of hours or days saved in drilling a well. On any lease where the APPLEMAN BIT is used you will find that the unusual speed of this bit is saving money every day for the oil man.

The remarkable speed* of this bit has made for it a reputation throughout the ranks of oil operators and drillers that singles it out as an outstanding leader where *time saved means dollars saved.

Ask the man who uses them or write for complete information today.

B.K. APPLEMAN
BEAUMONT, TEXAS

SKILLED SUPERVISION GUARANTEES THE QUALITY OF GULF PRODUCTS

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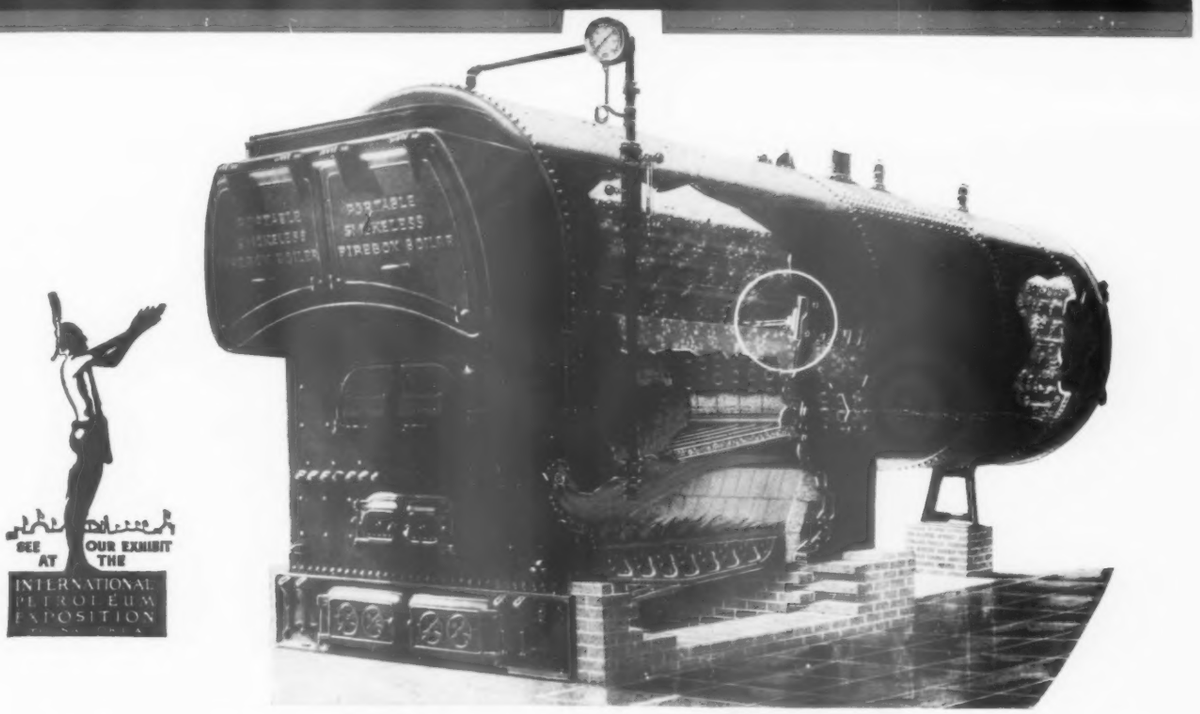


Built Like a Boiler!

IF a boiler weren't properly braced, or were it not for its stay-bolts, it would soon blow up. When steam is formed, there is exerted a certain amount of pressure, and the boilers must stand a high pressure and also be equipped with a safety valve in the event the pressure *exceeds* the factor of safety.

B. S. & B. PERFECTION Vapor Pressure Tanks are built on a similar principle. Their ribs, formed by the seams of the staves, alternating horizontally and vertically, the angle iron tie rods, inside ladder, and numerous other features, all tend toward strength and rigidity.

The storage of crude involves pressure due to its gases, but there is a safety valve—the B. S. & B. Thief Hole Pressure Vacuum Valve, that operates automatically at 16 ounces pressure—also at 2 ounces vacuum. *Thus this tank is protected!*

B.S.&B. Perfection Vapor Pressure TANKS

Steel for Sweet Crude

Wood for Sour Crude

JUST as the motor car is a series of improvements, so are these tanks. As a matter of fact, they are a series of "trifles" that make PERFECTION. Beginning with the bolt—these bolts are heat-treated and are 120,000 pound tensile strength—the type similar to those used in the manufacture of high powered motor cars. The steel itself is copper bearing—it retards corrosion, resists rust, and is high in tensile strength. The flange type construction, whereby there are four thicknesses of metal plus a special packing, not only adds strength but eliminates holes through the tank walls. The B. S. & B. Thief Hole Pressure Vacuum Valve, the sloping segmental deck, pie shaped bottom, etc., are just a few of the "trifles" that make this a *vapor pressure tight tank*, which prevents evaporation loss and maintains the crude at well head gravity. Everything to reach PERFECTION!

"Service on the Dot"

If you are in any way skeptical, let us prove that our "trifles" are NOT trifles. May we know your interest in tanks in general and the B. S. & B. tanks specifically? May a representative call, or may we send you literature? Address Dept A-31.

"Service on the Spot"

EFFICIENT B S SERVICE & B DEPENDABLE

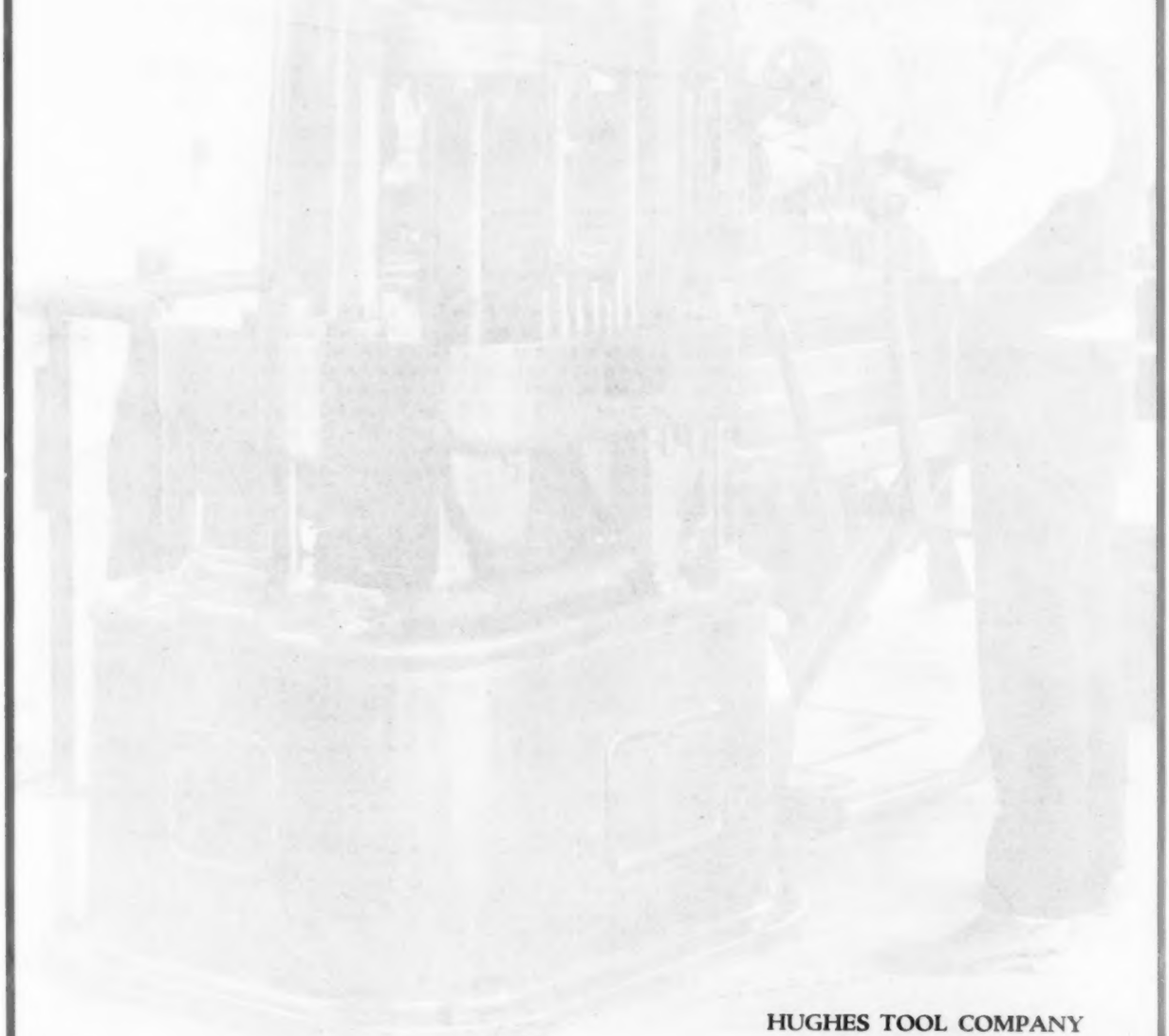
Black Sivalls & Bryson INC.

BARTLESVILLE ~ OKLAHOMA

Our Watchword QUICK SERVICE

The Hughes Tool Company developed, triea and proved the economy of using chrome nickle steel in the manufacture of tool joints, the "acme" or flat top threads and the value of heat treatment.

Today there are more Hughes Tool Joints in use throughout the oil fields of the world than any other make of joint . . . convincing testimony of their acknowledged leadership.



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